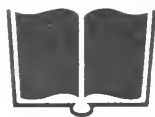




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# PACIFIC SERVICE MAGAZINE

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# Pacific Service Magazine

Volume XII



Number 1

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Leading figures at the N. E. L. A. convention in Pasadena. The portrait at upper left is of Mr. R. H. Ballard, of Los Angeles, who presided over the convention. By his side is seen Mr. John A. Britton, chairman of the Public Policy Committee. At the lower left, seated, is Mr. Martin J. Insull, of Chicago, the newly elected president of the N. E. L. A. The vignette portrait is of Mr. F. W. Smith, of New York, elected second vice-president.

# PACIFIC SERVICE MAGAZINE

Volume XII

JUNE, 1920

Number 1

## *History Made at the Forty-third Convention of the National Electric Light Association*

*Southern California Played Host, and the Result Was Success From Every Point of View, not Forgetting the Social and Entertainment Features*

By FREDERICK S. MYRTLE

FOR the third time within a space of eight years the National Electric Light Association has held its annual convention on the Pacific Coast. In 1912 the great body of electrical men from all sections of the country assembled in Seattle. In 1915 the glories of the Panama Pacific International Exposition lured them to San Francisco. This year they gathered in the southland, at Pasadena, in the heart of a valley famous for its orange groves, its superb residences, its exquisite portrayal of the beauties of semi-tropical nature.

To say that the southland rose to the occasion would be to accord but faint praise to those who played hosts to visitors from all points of the compass. Perhaps never in the history of the Association have business and pleasure been so harmoniously combined as upon this occasion. It was as though the stage had been set for some wonderful spectacle and the actors in the drama realized their opportunity and entered into the spirit of it and remained in it from the rise to the fall of the curtain.

Our great West was fortunate in having a Californian for president of the Association, Mr. R. H. Ballard, the able vice-president and general manager of the Southern California Edison Company. From the moment of his election a year

ago to that when he assumed the gavel in the ballroom of the Hotel Huntington at Pasadena, Mr. Ballard worked hard with but two objects in view: first, to make the convention one to be remembered in after years, second, to have that convention recognize and take hold of the possibilities and needs of the great West in true, earnest fashion. Today the West accords Mr. Ballard and his associates the greeting: "Well done!"

There was ample accommodation in Pasadena for the 2500 persons whom the convention drew there. The winter season was over, and for that one week the great hotels, the Huntington, Maryland and Green, threw open their doors. The Huntington was the central scene of activities, both business and social, and its picturesque setting upon an elevation overlooking the San Gabriel Valley made it particularly attractive to our lady visitors. As far as possible the committee on arrangements located the Eastern delegates at this hotel, but although the two other hostelrys were distant some three miles, none of our visitors suffered inconvenience of any kind. The power companies of Los Angeles supplied all the automobiles at their disposal, so that there was always transportation at any hour of the day.



Mr. S. M. Kennedy, who spoke wise thoughts on the subject of "Service."

In fact, it may as well be said now as at any other time that in every feature of activity, from the first to the last day of that convention week, the committee in charge of arrangements provided the most satisfactory service possible. There was not a flaw in the machinery. From first to last one heard nothing but praise; the kicker, for once, was conspicuous by his absence. When the week was over and the red, blue and other specials got steam up for their various return journeys across the continent they carried with them happy, smiling faces of men and women whose one expression was "We are glad we came!"

The week's activities opened with a one-day session of the Pacific Coast Section, presided over by Mr. A. Emory Wishon of the San Joaquin Light and Power Corporation. It was not an easy matter to crowd into one day what under ordinary circumstances would have taken three or four days, but the local convention leaders worked with a will and they did much in a small space of time. This

local convention, while, of course, overshadowed by the greater one to follow, proved of considerable service to the industry. Mr. Wishon found opportunity to drive home a plea for the active co-operation of the Californian people in Californian enterprise, if for no other reason than in their own self-interest. He stated that hundreds of millions could be well spent in public utility development in this State within the next eight or ten years; nay, that these large sums must be found unless the Californian people wish to retard progress. Power development and prosperity went hand in hand, he urged, and it was eminently necessary that the people of California should understand this and so by their active support encourage capital to invest in the projects that when carried to completion would place California at the head of the really progressive States of the Union.

Another point brought out in this local convention was the value of co-operation in the various branches of the electrical industry. Mr. L. H. Newbert, who succeeds Mr. Wishon as president of the Coast section, has for some time been head of the California Co-Operative Electrical Campaign which has done more, perhaps, than any other feature of activity in the electrical industry to awaken active interest on the part of all concerned. Mr. Newbert's report on the progress of this co-operative campaign was a very important item on the convention program.

Another discussion of vital interest to the electrical industry was that upon fuel conditions called forth by a paper presented by Mr. J. E. Woodbridge. Mr. Woodbridge's paper was supplemented by an address by our Mr. John A. Britton. Both gentlemen called the earnest attention not only of the convention itself but, particularly, of the people of the State to the fact that the electrical industry is facing a serious crisis in the matter of fuel oil production. It was



shown that not only had the price of fuel oil in California increased more than that of any other commodity, but that there had occurred a notable falling off in production, so that economy in its use had become absolutely necessary. The remedy, of course, lay in the development of waterpower to the uttermost extent possible.

One important change in the organization of the Pacific Coast Section was noted in the admission of all classes of membership to active participation in its affairs, relating, particularly, to committee work. This, it is expected, will have a beneficial effect in carrying out the co-operative idea.

This local convention was held Monday, May 17th. In the evening the specials began to arrive with our Eastern visitors. That which brought Mr. Martin J. Insull, Mr. J. W. Leib and other magnates of the electrical industry from the other side of the Rockies was treated upon arrival to a little display of Western frivolity. The entertainment committee had staged an old-time hold-up, and all the properties were in evidence, including stage coach, cowboys, Indians, with a plentiful display of firearms and other traditional accessories. In the way of frightening the august occupants of the stage coach the little drama was a failure, as these gentlemen submitted to be held up with a willingness that betrayed more merri-ment than consternation.

The Hotel Huntington was a gay scene that night. The weather was glorious and the hotel gardens were radiant. The real gala night, however, was the following, when President Ballard held his reception. An illuminated fete was staged upon the lawn, where fairylike dancers floated through the limelight and statuesque pageants moved across the sward. It was an enchanting scene, set off by the groups of well-dressed men and women that filled the balconies and terraces of the hotel.

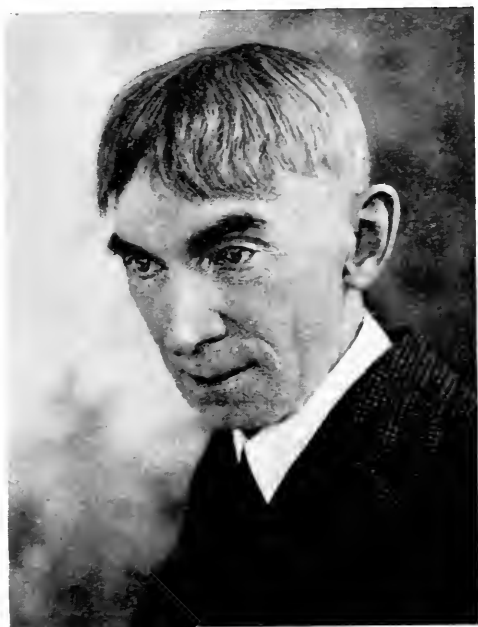
The convention proper opened on

Wednesday morning with an address by Governor Stephens. Our State's chief executive has taken much interest in the water-power situation out west, and he showed by his address that he not only understood but sympathized with the power-men in their campaign for practical sympathy at the hands of the people of the country.

"Hydro-electric development," said the Governor, "is the only practical way to conserve the great resources of our State which but for your efforts must go to waste. There is only so much oil, only so much coal, under the ground. Once it was thought these products were inexhaustible, but they are now known not to be so. The real power is in the running water, and its proper utilization is the vital problem now before the people of the State. You have made a substantial progress, for today California stands at the head of the states of the Union in utilization of electric power per capita. It is for you to proceed with the good



Mr. W. L. Frost, alias "Jack" Frost, chairman of the convention entertainment committee.



Mr. Charles H. Peirson, who ran the publicity feature of the convention and ran it effectively.

work with the active support of the people of your State and country."

Governor Stephens was followed by President Ballard in an address to the convention in which he dwelt upon the vital problems confronting the electrical industry today. Mr. Ballard made a dignified presiding officer and his direct way of talking impressed his audiences. He dwelt upon the need of securing return upon investment to be in all cases not less than a fixed minimum, also, upon the necessity of opening the financial purse strings to aid in the much needed new development, and he impressed upon his hearers two essential prerequisites, namely, efficiency of operation and service to the public.

Mr. Ballard upheld the idea of general publicity, expressing the opinion that the public should be kept fully informed upon the minutest details of public service operation. He thought the time was ripe for the public utilities to lay their case before the people they serve, for the reason that the failure of Government

ownership and operation as shown in the recent examples of railway, telephone and telegraph management had placed the so-called privately owned utilities in a better light than ever before. Another point in favor of the light and power utilities was the tie-in of transmission lines from one end of the State of California to the other, an accomplishment which Mr. Ballard thought had done a good deal to offset the municipal ownership idea. In order to attract capital the enterprise must be attractive to the investor, and as the interconnection of transmission lines made for economy as well as efficiency of operation, this was a step in the right direction.

Months previous Mr. Ballard had given out two subjects as the leading subjects of discussion upon the convention program, namely, water-power development and railroad electrification. Upon the latter subject Mr. Ballard told his hearers that at the rate of two and one-half pounds of coal per kilowatt of electricity turned out, the yearly consumption of coal in the electrical industry amounted to 176,000,000 tons, in value about \$120,000,000. All of this, insisted Mr. Ballard, could be saved by the simple process of harnessing the power that lay in the mountain snows. It was inevitable in the near future, why not lay plans for its accomplishment?

Mr. Ballard's address was most cordially received.

Another most important feature of the opening session was the report of the committee on water-power development, presented by Mr. Franklin T. Griffith of the Portland, Oregon, Railway Light & Power Company. It was an inexhaustive exposition of the conditions throughout the country today, with particular attention to what may be described as the water-power states. It referred to the water-power bill before Congress and expressed hope for its final passage. It urged the utmost co-operation between the Federal Power Commission to be

established under the proposed law and the electric power industry throughout the country, as a means to which end the committee recommended the appointment of a permanent committee to represent the industry in its relations as a whole with the Federal Power Commission.

Space does not permit of an adequate synopsis of this most valuable report. Copies of it, however, are being widely circulated. In its conclusion, the report gave an amount of \$710,510,000 as the estimated requirement to finance hydro-electric construction for the next nine years in the West alone. In order that this money might be forthcoming the public must be brought to a favorable attitude of mind toward the electrical utilities, and how this might be brought about was a subject worthy of much earnest consideration. The public, said the report, was as closely concerned with the need of this development as the power companies themselves, and it was advisable to undertake a widespread campaign of education along the lines of "self-interest." There should be a broad-minded policy on the part of the regulating commissions, and the report advocated a spirit of co-operation between such regulating bodies, the electrical industries and the public in order that the needs of the commonwealth might best be served.

Mr. John A. Britton was heard in the discussion which followed this report. He described the consumption of oil fuel in steam-electric development as the greatest economic waste in the West today. At the estimated rate of 200 kilowatts per barrel of oil, it was expected that this year alone no less than 7,000,000 barrels of oil would be consumed in the manufacture of electricity by the steam process. This prospect Mr. Britton regarded as most unfortunate in view of the threatened shortage of oil fuel, and he urged upon the entire convention the

necessity of taking up the hydro-electric problem with earnestness and determination to get results.

The general session program on the second day contained two features of unusual interest. Mr. S. M. Kennedy of the Southern California Edison Company was to the fore with an ably written paper on "Service." This subject Mr. Kennedy had treated in former papers from various angles. This time he went right to the heart of public utility organization. "In every avocation the universal thought points to service," said Mr. Kennedy. He held "Service First" to be the keynote of all business. There was a tangible service and an intangible service, and one was as important as the other. Every individual in the employment of a public utility, every part of its physical properties meant service. The failure of one link in the chain meant an impairment of that service, and the accomplishment of service in its truest sense meant endless and untiring effort.



Mr. A. E. Murphy, of Los Angeles, a prominent figure in the convention.

Mr. Kennedy favored rate schedules of as simple character as possible and liberal instructions to consumers upon the economical use of appliances. He thought it took more than the delivery of energy to make high-grade service. Courtesy as well as efficiency came into the case, and the complaint department, he thought, was one to be most carefully organized and administered. Consumers, he thought, liked to be considered as individuals and not a "bunch." There was the personal touch, by letter and telephone, to be considered and the policy of conciliation toward the consumer to be always in effect. The Chinese had a saying, "If you bow at all, bow low." Mr. Kennedy thought this proverb well worthy of attention at the hands of public utility management. The idea that what was good yesterday would be good today would never do in public utility operation. Service was demanding improvements every day. What was good service yesterday would be poor service tomorrow.

Summing up his address, Mr. Kennedy impressed upon his audience the absolute necessity of the public utility maintaining what he called tangible service of the best character possible, with every modern improvement, and what he termed intangible service to keep pace with the other.

A full house greeted President E. O. Edgerton of the California State Railroad Commission in his address upon "Rewards for Efficiency." Mr. Edgerton had addressed the electrical industry of California many times before, and there had always rung through his addresses a tone not so much of warning as of friendly counsel. He had openly expressed himself on the subject of the public utilities of California as being the best-run businesses of the State, and so it had come to pass that the public utilities of California had come to know Mr. Edgerton as one honestly striving to help the public utilities help themselves and to see

to it that the public should come to know the public utilities better.

Mr. Edgerton upon this occasion opened with the statement that public utilities were public servants and so were those who ran them; that what was good for the public was good for the company, the converse being equally true. In the general interest the public utilities must be kept sound, and Mr. Edgerton expressed surprise that the subject of public utility finance was not found upon the convention program. A prominent banker of Chicago had been heard to remark that any one who invested in public service utility securities needed a guardian. Such a statement Mr. Edgerton regarded as untrue and harmful, and he thought it was eminently desirable that the public should be brought to a realization of the actual truth, of the necessity not only for the existence of these public utilities but for their substantial support through the friendly co-operation of the public they serve.

Upon the question of efficiency, Mr. Edgerton thought that no man could be whipped into service; there must be some inducement, some reward held out in order to get the best that lay in him. So it was with finance. "You can't punish capital into coming out here," said Mr. Edgerton, "it must be and can be induced."

"We have assets in California which if properly used will furnish the necessary inducement. We have power houses, transmission lines, reservoirs, all the paraphernalia and equipment that go with public utility service, and over these lies the vital essential quality of service."

Upon the matter of rates Mr. Edgerton had a word to say. He thought that valuation questions were never settled satisfactorily, that some other basis of rate-fixing might be found. He suggested sound capitalization, with rates fixed so as to give reasonable interest to support that capitalization, and cash reserve sufficient to insure that interest.



Returning to the subject of rewards for efficiency, the president of the State commission urged the advisability of stimulating the public utility organization, not alone the management, but from president to office boy. It was not a matter of merely money, it concerned rather recognition of service and prospect of advancement, with elimination of pull and favoritism. It would not do to create the idea that only by using a club could a man get fair treatment. Mr. Edgerton gave a word of friendly counsel when he said:

"Beat the Railroad Commission to it."

In his conclusion of an able address which is to be printed for circulation, Mr. Edgerton told California she had a big job before her, the job of taking care of her working organization and, at the same time, finding a substitute for oil fuel. It was necessary, he thought, to attack the problem with an open mind, no one organization pitted against another, and if the solution of the problem should be found possible only through unification of plants—why, "Go to it."

Needless to say Mr. Edgerton's address awakened an outburst of enthusiasm. There were many men in that audience

who had only heard of the California Railroad Commission and had never met any of its members. It is not too much to say that the attitude on public utilities

as shown in Mr. Edgerton's address went far to encourage the convention in its development program.

Another address on similar lines was given the following day by Mr. Carl D. Jackson, president of the public utility commission of Wisconsin, a body which was referred to by Mr. Ballard in introducing Mr. Jackson as "one that in the early days of regulation had stood out prominently for sane decisions." Mr. Jackson had been heard before upon this subject of fair play for the public utility, and it was he more than any other who had reminded the public on more than one occasion that they, the public, were part owners in public utilities and it was to their interest that the public utilities should prosper. Mr. Jackson was warmly received



Mr. L. H. Newbert, prime mover in the California co-operative electrical campaign and president-elect of Pacific Coast Section, N. E. L. A.

when he presented himself. His address was most attentively listened to.

He opened with a plea for fair recognition for individualism. He thought that great freedom of action was not generally possible under municipal management. The test, of course, was under which

policy of ownership and management the people would receive a greater economic benefit. Mr. Jackson expressed himself in favor of regulation, advocating, at the same time, fair values to be fixed as the basis of return upon investment. He thought that not only the capital actually employed but the capital about to be employed should be taken into consideration. It was unfair, he thought, to include depreciation. This point he emphasized as follows: "If efficiency is to be kept up at one hundred per cent there is no justice in depreciation as a rate basis. If depreciation reserves are put into betterments these should be taken in." High interest rates and high construction costs, said the speaker, went into cost of service and must be allowed for.

In the matter of franchises Mr. Jackson declared for indefinite permits as better than short-term franchises. On the general question of regulation he expressed himself very emphatically. "The failure of regulation means government ownership," he declared, with an emphasis that impressed his hearers.

Like Mr. Edgerton, the Wisconsin commissioner was in favor of educating the public on all points. The public interests and the utility interests he regarded as mutual, and he thought both would be best served under regulation.

Mr. Jackson's address added to the feeling of encouragement which Mr. Edgerton's remarks had planted in the hearts of all present. In moving the insertion of this address with the others in the imperishable record of the convention proceedings, Mr. John A. Britton said "National history is being made here today."

Mr. Britton presented the all-important report of the public policy committee. This occurred on Thursday evening and was made a feature occasion. Men and women turned out to it. Not only was the hall filled to overflowing but the crowd took in the corridors outside.

Mr. Britton's report opened with a discussion of conditions generally throughout the country. It deprecated the existence of what was termed a period of hysterical inflation through which the purchasing power of the dollar had dropped 50 per cent, and a frenzy of extravagance had taken possession of the people without regard to class. It was a dangerous situation and one that must be handled by red-blooded men as the active agents of proper progress.

It was all very well, Mr. Britton thought, to enunciate public policies from the platform, to give way to high-sounding phrases and splendid determinations, but these would avail nothing unless taken seriously to heart and followed up.

"The doctrine of self-interest should govern the conduct of the electrical industry to a great extent. Regulation," said the report, "has caused us to believe more in the necessity of self-interest and service, that is, applied to those whom we serve, but we have not as yet fully realized the necessity of the same fundamentals of self-interest and service to those who serve us.

"Public policy dictates a study of public service commission relationships, welfare work, insurance, sick, death and relief funds for employees, profit-sharing for employees, stock ownership of customers and employees, savings fund, accident prevention—in a word, the whole range of social and economic questions that are in the forefront of modern thought."

Mr. Britton referred to the municipal ownership agitation and expressed the opinion that no greater menace faced the industry today that would tend to its disintegration more rapidly and surely than would the attempts of municipalities to dissipate or injure the organizations which spell for the public service and economy. The economic development of the electrical public utility had been dealt with in masterly fashion in the report presented by the Committee on

Water Power Development, he said, but very little had been accomplished throughout the country in covering the broad policy of informing the public of the all-important phases of public utility operation, and the report advocated a frank and open dealing with the public in every detail.

A serious situation had developed in California through climatic conditions, which had brought about a power shortage. The raise in price and impending shortage of oil fuel had rendered this situation more acute and it was necessary, so far as the great West was concerned, to inaugurate a broad campaign for the encouragement of electrical development by all the constituted authorities.

The report urged the vital necessity of attracting capital to hydro-electric development, and urged that this could be done only by fair rates to meet operating costs, money costs and a reasonable margin thereover, as a factor of safety.

It was a campaign of education in which the public thought must be directed to (first) the absolute need of extensive hydro-electric development, and (second) the measures necessary to make this hydro-electric development economically possible; then through that education of the public would the comprehensive idea be communicated to the representatives of the public in the halls of Congress, in whose hands lay the power to make the necessary legislation to unlock the water power sources of the country to those willing to put their money and their brains into the great work of progress.

The report discussed various features of public policy, including relations of the central station to the manufacturer, co-operation between all branches of the industry, electrical press, societies for electrical development, co-operation between electrical interests and the public, national relations, alliance with other utilities, our relations to the public service commissions.

The report closed with some valuable suggestions for the protection and care of employees, both in and out of working hours. It said: "Employees should know more of the business in which they are engaged. They should not be interested only in the more material, daily things performed perfunctorily, but should be given a proper vision of what the utility service means to the public; and the management should share in some reasonable way with its employees the problems, difficulties and anxieties, as well as the ambitions that confront them in their daily task."

In describing this convention I have touched merely upon the high spots from the general session point of view. I have left the technical and commercial features to be dealt with by other and more expert hands. I should like, however, to mention a display of industrially lighting given during the week. This was the result of a co-operation of lamp manufacturers of the East with the reflector manufacturers with the view of increasing a lamp efficiency. Experiments had been conducted at the White automobile factory in Cleveland, Ohio, and at Pasadena and the result was shown in a demonstration in which the glare of the light was softened by an enameled bowl, metal reflectors being used to diffuse the rays.

At this exhibition the information was given out that the recent improvements in lamp efficiency had increased the output from the Cleveland works from ten to twenty per cent, chiefly through removing the glare and distributing the light rays more equally by the reflector process. It had, also, reduced the number of accidents. It has been decided to establish branch demonstration bureaus in San Francisco and Los Angeles, these bureaus to be equipped for demonstration by the National Lamp Works.

On Saturday, May 22, the forty-third convention of the National Electric Light Association closed with the election of officers to serve for the ensuing twelve-

month. Martin J. Insull, of the Middle West Utilities Company, Chicago, was elected president; M. R. Bump, of the Henry L. Doherty Company, New York, first vice-president; Frank W. Smith, United Light and Power Company, New York, second vice-president; Walter H. Johnson, Philadelphia Electric Company, third vice-president; last, but not least, Franklin T. Griffith, Portland, Ore., Railway, Light and Power Company, was chosen fourth vice-president.

In its social and entertainment features this convention, perhaps, was distinguished above all others that preceded it. Credit for the success of these entertainment features should be given Mr. "Jack" Frost of the Southern California Edison Company, chairman of the entertainment committee, who worked with a will and always "put it over." Pasadena was an ideal spot from both a climatic and scenic point of view and the hotel gardens were inviting. Every evening there was a display of artificial light that came nearer to Fairyland than anything that could be imagined.

The illuminated garden fete of the night of the president's reception has been referred to. On the Wednesday evening the old mission town of San Gabriel held the convention visitors for a presentation of the celebrated mission play, with the veteran actor Frederick Warde in the character of Junipero Serra. Thursday afternoon Mr. John B. Miller, president of the Southern California Edison Company and chairman of the convention committee, entertained delightfully at his Pasadena residence. Mr. and Mrs. Miller received their guests in the spacious gardens of their attractive

home, and there was a varied program of entertainment to the accompaniment of tea and iced refreshments.

That evening, as before stated, was given over to the public policy meeting. This was a gala event, however, and there were musical interludes, and at the close "The Fairy and the Snowflake," a clever motion picture drama written for the occasion by Mr. Charles H. Peirson, publicity manager for the Southern California Edison Company, held the attention of the assemblage.

On Friday evening Pacific Coast Section played host to our visitors at the Hotel Maryland, in Pasadena, with a cabaret feast set off by dancing features and the presence of celebrated "movie" stars from the nearby settlement at Hollywood. The evening wound up with a genuine forty-nine mining camp, with all games going and millions of dollars of stage money changing hands every second or two.

In addition to the regular entertainment program there were daily drives and excursions in which our lady visitors participated. All points of interest within a radius of many miles were visited in turn. For those who stayed over the week-end following the convention there was a trip to Catalina.

The last seen of our convention visitors was in San Francisco, on the evening of Friday in the week following the convention, where the voyagers by the Red Special were entertained to a dinner dance at Tait's On the Beach. This put the finishing touch upon our visitors' round of pleasure and helped to send them back across the continent happy and contented.





## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION



The famous Hooker oak, on the Bidwell tract, near Chico.

The Association's out-of-town excursion program for the current season added another star to its record of successful accomplishment by the gathering at Chico and de Sabla, which took place May 29th, 30th and 31st.

This affair was held under the combined auspices of Chico, de Sabla, Northern and Coleman districts. On account of the distances to be traveled from the central points of "Pacific Service" activities the selection of the Decoration Day holiday period was a happy one. Representatives from all points made the trip over the State Highway, and at the reception in the afternoon the muster-roll, including local representatives and guests, numbered 160 men and women. The weather man did his best for the



Seeking shade and comfort beneath the spreading branches of the Hooker oak.

occasion, the sun shone and the air was balmy, so that white flannels and blouses were in order at all hours. Manager Heryford of the Chico District and Manager Adams from de Sabla nearby were on hand to receive their guests, as was also Manager Edward Whaley, who came over from Red Bluff, the headquarters of the recently acquired Northern District.

The official program of entertainment opened in the early evening with an al fresco dinner upon the lawns of the State Normal School. The tables were spread under beautiful oak trees and the whole picture was most inviting. Orchestral music was furnished by the



Watching the rushing waters at de Sabla.

Chico Chamber of Commerce, and Mrs. S. M. Sypher, a local vocalist, rendered some pleasing selections. The meal was such as an al fresco feast should be, with fruit, cool salads and ice cream, not forgetting the "piece de resistance," fried chicken. When all the good things had been eaten the whole assemblage moved to the theater floor in the Normal School, where the indoor program was presented. Manager Heryford introduced Mayor Reynolds, who was on hand to offer an address of welcome. This he did in most genial fashion, speaking highly of "Pacific Service" as an institution and declaring the pleasure it gave him to throw open the gates of his beloved city to its men and women employees. President Earl Fisher of the P. S. E. A. responded suitably. Then the Pacific Service Players' Club gave "Cupid in Khaki," the pleasant

little comedy that had been so successfully staged at a previous meeting in Oakland. The same cast appeared as on the former occasion, and, as before, Mr. Frank L. Mathieu came up from San Francisco to personally direct the performance.

Mrs. G. P. Welschke gave a dramatic recital of unusual merit. At the conclusion of this program another adjournment was taken, this time to the ballroom floor where, needless to say, dancing was in order, the music being furnished by our "Pacific Service" jazz orchestra. Pleasing interludes were furnished by little Miss DeMarais, a local product, who gave a delightful exhibition of toe dancing, and Mr. J. W. Northedge, also from Chico, who mystified his audience



Fishing in the reservoir at Camp One, de Sabla.

with ledgerdmain. Another unusual number was a swimming exhibition by two members of the "Pacific Service" family in the Normal School plunge, Mr. Otto L. Schultz, who, incidentally, is captain of the San Francisco Olympic Club's water polo team, and Miss Myrta Zavitz, of the valuation department.

Visitors were accommodated at Chico's leading hotels that night. All were up betimes on Sunday morning for the trip to de Sabla. No less than seventy-five machines, from touring cars to trucks, were called into requisition to convey some three hundred men and women to the promised hospitality of Mr. and Mrs. Adams. The trip from Chico to de Sabla along the banks of Butte Creek is delightful, particularly when after leaving



Earl Fisher on the bridge across Butte Creek, de Sabla power-house.

Centerville the road winds upward until a height of some 2500 feet above the stream affords the traveler a comprehensive view of as beautiful a canyon as is to be found in all California. The road leads past Nimsheew, a relic of the old mining days, to Camp One, and there our visitors found their hosts waiting to receive them. Long tables were laid out in the grounds at headquarters and de Sabla's best—and it is "some" best—in the way of edibles was spread thereon.

After lunch there was dancing at the pavilion for those inclined thereto, while others walked the ditches or swam or fished in the reservoir. Ed Florence, our rosy-cheeked manager of Redwood District, is accredited with a huge basket of trout which he generously shared with his fellow voyagers. Of course there was the power-house in the canyon below to be visited and the water from the wheels was shot across the creek for the benefit of those who had not seen the sight before. Centerville power-house, eight miles downstream, was also taken in.



Members of the party at Centerville power-house, below de Sabla.

The return to Chico was made late in the afternoon, and before nightfall the beautiful grounds of the Bidwell estate were visited. Naturally the famous Hooker oak was inspected, and one of the accompanying pictures shows a group of "Pacific Service" employees enjoying its leafy shelter.

All remained over night in Chico and the following day the return journey of some two hundred miles was made to the shores of San Francisco Bay.

Our Pacific Service Employees' Association as a body extends thanks and congratulations to the managers of the up-country districts who were responsible for one of the most successful outings on record.

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In a previous number of PACIFIC SERVICE MAGAZINE reference was made to the proposed establishment of a loan fund whereby members of the Association in good standing might obtain relief in cases of urgent need.

Definite plans for this were agreed to at a meeting of the Executive Committee held June 10th. The following resolutions were adopted:

1. That there be created a Loan Committee to consist of five (5) members, at least three (3) of whom shall be members of the Executive Committee. Such Loan Committee shall have direct jurisdiction and supervision of all loans and applications for loans that shall be submitted to this Committee for approval or rejection. The affirmative vote of at least three members of the Committee shall be necessary for the approval of any loan.

2. The Loan Committee shall consider only such applications for loans as shall be presented by members of the Association in good standing.

3. No individual loan shall exceed the sum of One Hundred Dollars (\$100.00), provided, however, the Loan Committee may approve applications of an individual member up to but not exceeding the aggregate sum of Three Hundred Dollars (\$300.00).

4. The Loan Committee shall keep a record of and render a monthly report to the Secretary of the Association of all

applications for loans passed upon by it, whether approved or rejected.

5. The Secretary of the Association, or in the event of his absence or disability, the President, Vice-President or Treasurer, is authorized to endorse the note of any member of the Association whose application shall be approved by the Loan Committee.

A proposal to handle all loans in behalf of the Association was received from the Morris Plan Company and, after due discussion, accepted, and a committee from the Association appointed to work with the Morris Plan Company in investigating applications. It was decided that all applications favorably passed upon by the Morris Plan Company should be guaranteed by the endorsement of the officers of the Association.

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Solano district reports one hundred per cent membership. Good for Solano. You are now in the same class with Nevada district, which signed up one hundred per cent some months ago.

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Another feature of interest to members is the educational feature which is now assuming some importance. During the month of May two evenings were devoted to exploiting the mysteries of the "Pacific Service" system.

On the evening of Tuesday, May 11th, a goodly number of men and women members were shown station "A" at the Potrero, San Francisco, and on the evening of Tuesday, May 25th, station "C" in Oakland was visited. Carryalls were used to transport visitors and the educational part of the program was under the direction of Mr. J. T. Jollyman, our engineer of electrical construction.

On the Oakland trip a visit was, also, paid to the Load Dispatcher's office, where Fred George gave an interesting talk upon the duties of "The Men at the Switchboard."

It is with pleasure that we record the interest taken by our women members in the technical details. It is very encouraging to note a general desire on the part of all to become intimately acquainted with every branch of "Pacific Service" activities.

## *Pacific Coast Gas Men Gather in the Southland*

For the second time during the present season and the last before the Portland convention in September, members of the Pacific Coast Gas Association assembled at a get-together dinner to receive reports of progress from the various committees and generally to line up their forces for the all important annual event.

This time the dinner was held in Los Angeles, on the evening of Saturday, June 12th, and the culinary resources of the City Club were taxed to provide entertainment for ninety gas men, all of whom are more or less appreciative of the good things of life. To say that the dinner was successful is to pay a now accustomed tribute to the men of the southland, who have ever risen to the occasion when the problem before them concerned the entertainment of their friends. President A. B. Day and his associates had the affair in hand weeks before, and when they met the trains that brought in their visitors from the north they were, so to speak, armed at all points.

It has now become an established custom at these dinners to have the courses interspersed with colorful entertainment. The high standard which has been set through the rivalry of north and south was maintained upon this occasion, and a special word of praise must be given Miss Northmore, daughter of the Los Angeles Gas and Electric Corporation's superintendent of electrical distribution, who sang and recited charmingly.

When the feasting was over President Day called for reports of committees. Secretary Bostwick read a message from Mr. John A. Britton, who, while expressing his regret at his inability to attend the gathering, wrote most encouragingly of the work already accomplished and in prospect of being accomplished by the Association, notably in the investigation of B. T. U. standards which is now in process under its auspices. Other familiar faces that were missing were those of Messrs. E. C. and L. B. Jones. Secretary Bostwick, however, had a message of cheer for his audience in his announcement of considerable additions to the membership roll from the Pacific Northwest territory.

Mr. W. M. Henderson reported for the library committee, and a report by Mr. H. M. Crawford for the committee on the

pipng of buildings for gas was read by the secretary. Mr. E. S. Bryant, formerly of the California State Railroad Commission, and now field engineer in the employ of the joint committee on efficiency and economy of gas, reported progress for the committee. He stated that since the last gathering in February the time had been taken up with preparations for the B. T. U. standard tests to be conducted at the agreed-upon points, San Jose and Santa Barbara, but he was glad to announce that the preliminaries were now completed and that the tests would begin without delay. It is understood, however, that the investigation in progress is likely to take from one to two years before a definite determination can be reached as to the best quality of gas, as measured by B. T. U. content, for manufacture and distribution to the consumer, as well as for use by the consumer. It is a matter of common knowledge that the California State Railroad Commission has, for the present, fixed the standard of gas to be manufactured and distributed to consumers at 570 B. T. U.'s, but the commission has expressed itself as being perfectly willing to be "shown" on this very important matter. The question to be decided, of course, is whether or not a lower standard makes for better all-round efficiency. The reports of tests recently made in Great Britain would seem to point to the affirmative of this much-debated question.

Mr. A. B. Macbeth, president of the Southern California Gas Company, spoke upon the ever-present problem of "The peak load in gas distribution." He warned his hearers of the constantly increasing demand and of the rapidly approaching day when, unless they bent their shoulders to the wheel, the manufacturing and distributing companies would be unable to meet that demand.

Mr. F. S. Wade, of the Southern Counties Gas Company, related his experiences in a recent trip East and gave some interesting information concerning a wide-spread campaign of publicity undertaken in New York for the purpose of acquainting the public with the absolute necessity of gas for domestic uses.

Mr. Charles Luckenbach, of the Los Angeles Gas and Electric Corporation, entertained with a humorous anecdote.

Mr. William Baurbyte, vice-president of the last-named institution and a past-president of the P. C. G. A., addressed his old associates in happy vein.

Mr. F. S. Myrtle reported progress upon the publicity campaign to be undertaken in connection with the Portland convention and read a communication which, as he said, he "might or might not have received" from his fellow committeeman Mr. John H. Hartog of the Rose City.

Last, but no means least, was heard Mr. W. M. Kapus, also of Portland and a director of the Association, who spoke for the committee of arrangements for

the coming convention. It was good to hear that some sixty members had joined up from the northwest and that yet a greater addition to the roll might be expected between now and September. It meant the spreading out of an Association whose activities hitherto have been largely confined to California. Now the cities of Portland and Spokane, aye, even Vancouver, B. C., are on the Association map.

All of which goes to show that our old standby, Gas, is not only still doing business but shows every prospect of doing more business than ever.

F. S. M.

## *The Superiority of Gas as a House-Heating Medium*

By H. M. CRAWFORD,  
House Heating Department, San Francisco District

That there can be no better medium for house heating than gas is demonstrated every day. Gas is known to be the most convenient and practical fuel of modern times, equaled only by electricity in its availability at the instant it is required. Now comes an analysis of all the factors that go to make up perfect heating, carefully compiled by the industrial gas engineering department of San Francisco District, which proves that in the matter of cost gas is far below electricity.

A room of definite dimensions is to be heated. After calculations, it is found that with the radiation losses encountered, the necessary air change and temperature rise required, the heat units necessary amount to 10,000 per hour. This quantity of heat, naturally, would be the same for any fuel, coal, gas, oil or electricity, as the amount of heat is definite, no matter from what fuel it is obtained. We are, however, only concerned in this case with gas versus electricity.

Assuming the heat contents of gas to be 570 B. T. U. per cubic foot and applying this in a furnace or other heater we allow an over-all efficiency of 75 per cent. We would then have 570 B. T. U. multiplied by 75 per cent, or 427.5 available

B. T. U. per cubic foot of gas. Dividing the hourly requirement of 10,000 heat units by the available heat of 427.5 B. T. U., we have a requirement of 23.5 cubic feet of gas per hour to do the work. With gas selling at 90 cents a thousand cubic feet, this means a cost of .02115 cents per hour, which, for thirty days of five hours each, or 150 hours a month, will amount to \$3.17.

Proceeding along the same lines we find the following true in order to heat the same room to the same degree with electricity: The available heat in one kilowatt hour is 3412 B. T. U. Assuming an efficiency of 100 per cent, and dividing the amount of heat required, 10,000, by that available, i. e., 3412 B. T. U., shows a requirement of 2.92 K. W. H. per hour. Taking, as an average, a rate of 7 cents per kilowatt hour for electricity, the hourly cost would be 2.92 multiplied by 7, or 20.44 cents; and for thirty days of five hours each, or 150 hours a month, the cost would be \$30.66, nearly ten times as much as that of gas. To compete with gas at the efficiency and rate given above the cost of electricity would have to be reduced to three-fourths of a cent per kilowatt hour.

## Oil and Gas Heat Applications Compared

By LETSON BALLIET, M. E.

[In our February number we took pleasure in publishing an excellent article upon "Comparative Heat Costs" by Mr. Balliet, who is consulting engineer for the Moore Shipbuilding Company, in Oakland, California. Mr. Balliet has done a great deal toward promoting the universal use of gas as an industrial fuel. His articles are always well written and present technical information in an understandable form.]—EDITOR PACIFIC SERVICE MAGAZINE.

I have been repeatedly asked, is it possible to make a gas out of oil, and get more heat out of the gas than was in the oil?

Certainly not. Neither is it possible to get more water out of a pump than you can get into it, but the pump will put the water where you want it, when you want it and under whatever pressure you want. And so with gas, you can get the combustion where you want it, and as you want it, with an accuracy of control that is impossible with oil.

Under ordinary circumstances, if a big heavy fire of continuous operation, with a steady heat requirement is necessary, I would say fuel oil would be cheaper than gas made from the oil, *provided* that no other element than the cost of the fuel enters into consideration.

Fuel oil burners require either steam or air as an atomizing medium and both cost something. A good oil burner using steam requires from two to three per cent of the steam the oil generates, or, roughly, three to four pounds of steam per gallon of oil.

Compressed air gives a shorter and more intense flame (the higher the pressure the more intense), and produces a severely oxidizing flame. With air mixture, the more complete the mixture and the higher the pressure, the shorter and more intense the flame.

But fuel oil, no matter how finely it may be atomized, *is still oil*. Each little globule must come in contact with enough oxygen to make complete combustion of the globule. The globule must float in an atmosphere of oxygen, and travel on and on into space until it gets enough oxygen to consume it. It deoxygenizes the air that it comes in contact with, and passes on into new air, becoming smaller and smaller as it travels into new oxygen. Therefore, it is evident that fuel oil cannot be burned except in an *excess of air*. Fuel oil fires are, therefore, severe oxidizing fires, which are hard upon grate bars and metal, which are rapidly oxidized, scaled or burnt,

whichever you choose to call it. Therefore, if a fire that is required to heat metal is under consideration, the metal loss or deteriorated value of the metal, may alone be worth more than the cost of the gas fuel.

Manifestly, it is impossible to get more b. t. u. out of a gas than it contains, or 570 b. t. u. from the manufactured gas of the San Francisco and east bay sections.

In your cook stove or gas heater a small volume of gas passes through the burners and spreads out into a relatively large space. Through a Bunsen burner air is mixed with the gas and it is consumed closer to the burner and intensifies the heat in a smaller space, and when properly mixed with pure oxygen under pressure it produces enough temperature to burn or cut steel. You get no more heat units from a cubic foot of gas, but you can expend the energy of the heat in a smaller space.

For example: a gas burner that would burn ten cubic feet an hour would not give off heat enough to be noticed in a great auditorium, but the same amount of gas burned in the same heater enclosed within a small space would heat it to suffocation, and yet each cubic foot of gas gives off the same number of heat units when it is burned in the big room that it does in the small closet.

A completely combustible mixture of gas and air can be made which can be burned in a bottle under water, but oil must have its excess of air. It must spread out for oxygen and thereby spread out its heat beyond the space where the heat is needed.

The temperature in degrees depends upon the space or matter volume heated. If you confine 570 b. t. u. of a cubic foot into a cubic inch of space and the combustion is rapid enough with oxygen under pressure you can get a temperature of over 60,000 degrees Fahrenheit, while it takes but 2550 degrees to melt steel. If the same cubic foot of heat units is spread out over 10,000 cubic feet of space or imparted to a 5000-ton meteorite, it

probably wouldn't raise the temperature a single degree.

Heating of metals should not be more rapid than the thermal conductivity of the metal. To overheat steel destroys the quality. Heating with an excess of oxygen destroys the exterior and causes scale. Heating steel faster than the conductivity of the metal will carry the heat to the center is wasteful. You cannot hurry conductivity beyond a safe temperature, without destroying the quality of the outside before the inside is heated, but within the heat limit the speed of conductivity is directly proportional to the *difference* in temperature between the outside and the inside.

I have seen workmen heating steel in fires above 2400 and 2500 degrees, trying to force a rapid heat with an excess of oxygen (air) which was actually destroying by oxidation the quality of the outside of the metal before the thermal conductivity of the metal could carry the heat to the center. To heat the metal in a lower heat is often called a "slow heat," or a "soaking heat." One mechanic said to me, "It takes metal forever to get hot in a slow fire, but when it gets red it just gets red all over at once, and it takes it longer to cool off." The fact of the matter was that the bloom under observation at the time was heated only part way through in the fast heat while it was heated clear through in the slow heat and did not get red till it was heated through, for it was not heated faster than its heat conductivity called for. The same mechanic also commented on "how much easier the metal worked when heated in the slow heat," which was natural because the bloom was being worked with a cold center when heated in the fast heat. It looked like the fast heat made the hottest metal because the outside was almost "spitting" when taken from the fire.

The best illustration of destroying the outside of the metal without damaging the inside can be made with the gas and pressure oxygen. You can take a bar, say 18 inches square, and heat one side of it red hot and cut a piece out of that side before the opposite side is more than warm, and yet you have actually burned

and destroyed a part of the steel on one side. However, a good pre-heat of a large bloom will save gas if the cut is to be large.

To illustrate the speed of thermal conductivity, lay a thick piece of steel across an open forge and place a little hard grease upon the upper side and it will take many minutes before it melts. How long would it take the cook to get breakfast if eggs had to be fried on a stove lid 18 inches thick or if she had to boil water in a tea kettle with a bottom of that thickness?

With the ordinary Bunsen burner, mixing gas with air, a temperature of 1840 degrees Fahrenheit is commonly maintained.

With air and gas under pressure of two or three pounds and a carefully regulated burner a temperature of 2200 degrees Fahrenheit is easily obtained. Under all ordinary conditions this is too hot a fire for heating small diameter mild steel, if not taken from the fire when the right moment arrives.

The fusion of the steel occurs at a temperature of 2550 degrees Fahrenheit, and furnace temperatures have been frequently carried to 2800 degrees Fahrenheit, but before this point is reached the fire clay begins to melt down and flux itself with the iron.

Excess air—air under pressure—or oxygen mixed with gas will shorten the flame, reduce the area of combustion and intensify the heat in a smaller place.

Therefore, it may be stated that while it is impossible to get more heat units out of the gas than out of the oil, it is evident that b.t.u. content of the fuel has not so much to do with the results obtained as the *accurate control* of the fuel to get temperature confined within the space required, without waste and without excess of air.

Smoke, fumes and heat going up the stack or bursting out into the room are wasted heat units, caused by incomplete or improperly controlled combustion.

With properly designed furnaces and scientifically directed operations there are many cases where manufactured gas fuel will be more efficient and less destructive of material and less expensive than fuel oil.

Small industrial plants can use gas fuel with just as much relative economy as the biggest industry in the State.



# The Financial Side of "Pacific Service"

## SECURITY HOLDERS

Accepting as axiomatic the statement that a utility is best known in the territory in which it operates, it seems obvious that the ownership by 14,731 California investors of Pacific Gas and Electric Company securities indicates that the people of this State have confidence in the present conduct and future prospects of the Company's business. Of the 28,603 investors who hold the Company's stocks and bonds, more than one-half are Californians, 70 per cent of the stockholders and 42 per cent of the bondholders being residents of this State. A summarized statement showing the distribution of the Company's securities follows:

	Stockholders	Bondholders	Total
Owners residing in California .....	6,818	7,913	14,731*
Owners residing outside of California .....	2,936	10,936	13,872
	9,754	18,849	28,603

\*Eliminating duplications due to ownership of more than one class of stock by the same investor.

It is also worthy of observation that in the short space of two and one-half years nearly 6,000 additional investors have become owners of the Company's capital issues. The above figures do not, of course, take cognizance of the very large number of persons who are indirectly, but nevertheless quite materially, interested in the Company's welfare by reason of being depositors in savings banks and through their association with other institutions which include among their investments Pacific Gas and Electric Company's securities. In this connection a certificate has just been issued by the State Superintendent of Banks approving the following issues as legal investments for savings banks in California:

### LIST OF BONDS OF PACIFIC GAS AND ELECTRIC COMPANY AND SUBSIDIARIES, WHICH ARE LEGAL INVESTMENTS FOR SAVINGS BANKS IN CALIFORNIA.

- Pacific Gas & Electric Company General and Refunding Mortgage Gold Bonds, due January 1, 1942.
- California Gas & Electric Corporation Unifying and Refunding Mortgage 5% Bonds, due November 1, 1937.
- California Gas & Electric Corporation First Mortgage 5% Sinking Fund Thirty-Year Bonds, due March 1, 1933.
- Bay Counties Power Company First Consolidated Mortgage 5% Bonds, due September 1, 1930.
- Bay Counties Power Company Second Mortgage 6% Bonds, due April 1, 1931.
- Nevada County Electric Power Company 6% Bonds, due October 1, 1928.
- Yuba Electric Power Company 6% Bonds, due June 1, 1929.
- Valley Counties Power Company First Mortgage 5% Bonds, due May 1, 1930.
- California Central Gas & Electric Company First Mortgage 5% Bonds, due August 1, 1931.
- Sacramento Electric Gas & Railway Company First Mortgage 5% Bonds, due November 1, 1927.
- Central Electric Railway Company First Mortgage 6% Bonds, due serially from June 1, 1917, to June 1, 1922, inclusive.
- The Standard Electric Company of California First Mortgage 5% Bonds, due September 1, 1939.
- Blue Lakes Water Company First Mortgage 6% Bonds, due March 15, 1938.
- United Gas and Electric Company First Mortgage 5% Bonds, due July 1, 1932.

South Yuba Water Company Consolidated Mortgage 6 $\frac{1}{2}$ % Bonds, due July 1, 1923.  
 Central California Electric Company First Mortgage 5 $\frac{1}{2}$ % Bonds, due May 1, 1933.  
 Suburban Light and Power Company First Mortgage 6 $\frac{1}{2}$ % Bonds, due August 1, 1938.  
 San Francisco Gas and Electric Company General Mortgage 4 $\frac{1}{2}$ % Bonds, due  
 ■ November 1, 1933.  
 Pacific Gas Improvement Company First Mortgage 4 $\frac{1}{2}$ % Bonds, due September 1, 1930.  
 Edison Light and Power Company First Mortgage 6 $\frac{1}{2}$ % Bonds, due November 3, 1921.  
 Mutual Electric Light Company First Mortgage 5 $\frac{1}{2}$ % Bonds, due June 1, 1934.  
 Metropolitan Gas Corporation First Mortgage 5 $\frac{1}{2}$ % Bonds, due December 1, 1941.  
 Livermore Water and Power Company First Mortgage 6 $\frac{1}{2}$ % Bonds, due September 1,  
 1922.

The above list includes all outstanding bonds of this Company with the exception of those assumed in connection with the acquisition of the Northern California Power Company. Consolidated, application for the admission of which as legal investments for California savings banks is now pending.

### THE SECURITY MARKET

The present appears to be an unusually opportune time for investment in the securities of public utility companies. Not within the memory of a generation have high-grade issues yielded so attractive a return to the investor as within the past few weeks. Without venturing into the realms of prophecy, it seems reasonable to assume that with the return of the financial markets of the world to something more approaching normal conditions, the universally low prices of all classes of securities, considered from the standpoint of the yield to the holders of these securities, will once seek a level more commensurate with true value. The period of industrial unrest and readjustment which is being experienced in the United States at this time makes the obligations of gas and electric companies, at current market quotations, appear of particular value. The peculiar stability of the utilities during times of stress has again been demonstrated during the war period. They have made no spectacular profits in this period, nor do they anticipate doing so in the future, but the uncertainty which unquestionably confronts a great number of industrial undertakings at this time can hardly be said to extend to enterprises such as ours. There is a growing realization on the part of the general public, as well as regulatory bodies, that no community can prosper whose utilities are not permitted a rate of return which will enable them to successfully maintain their credit and obtain at reasonable rates the capital essential to expand their facilities to keep pace with the development of the territory which they serve. With the normal increase in its gross revenues due to the taking on of new business now running at the rate of about two million dollars per annum; with the economies in operation which should result from the substitution of hydro-electric energy through the development of the Company's Pit River projects for much of that now generated in steam plants; and with the anticipated establishment of rates which will yield a fair return upon the capital invested in the property, there appears adequate reason for the belief that investors who purchase the securities of the Pacific Gas and Electric Company at current prices should have no reason to regret their choice.

### CONSERVATION OF ASSETS

The following table has been extracted from the Company's annual report for 1919, which has just been received from the printer. As evidence of the conservative policy which has been consistently pursued in the past with respect to putting back into the property part of the net earnings, it will be observed that of the net earnings after bond interest, aggregating approximately \$53,994,000 in the past fourteen years, only \$16,804,000, or 31% was paid out in cash dividends.

To retire bonds.....	\$10,548,000
Reinvested in Property.....	11,648,000
For Replacements and Rehabilitation.....	13,897,000
Cash Dividends.....	16,804,000
Other Purposes.....	1,097,000
	<hr/>
	\$53,994,000

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - - MANAGING EDITOR  
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*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII

JUNE, 1920

No. 1

### EDITORIAL

Hydro-electric development in the United States to an extent sufficient for the growing needs of the country received a decided impetus when the water-power bill passed at the last session of Congress became law by the signature of the President.

This bill has been described as the final result of over ten years of controversy and exhaustive hearings and discussions before various committees of Congress in an endeavor to provide a law establishing conditions under which, as well as the necessary machinery by which, the water-power resources of the country might be developed under terms sufficiently attractive to capital while properly safeguarding the public interests. It was formed and reformed, drawn and redrawn, amended and re-amended, until it finally went into a conference committee from which it emerged with the approval of both houses of Congress.

The essential features of this bill are as follows: It purports to create a Federal Water-Power Commission, consisting of the Secretary of War, the Secretary of Interior and the Secretary of Agriculture. It provides for the appointment of an officer of the United States Engineer Corps to serve the Commission in the capacity of executive secretary

and engineer. It authorizes the Commission to investigate and collect and record data concerning the water resources of the country, water-power surveys, industries marked for power consumption; in a word, to collect any and all information concerning water-power development, present and prospective.

The measure authorizes the Commission to issue licenses for water-power development on the public domain for periods not exceeding fifty years, developments so licensed to be subject to purchase by the United States Government at the end of the license period, with provision for severance damages in proper cases. Provision is made for permit fees to be paid annually by the grantees, such fees to be of sufficient amount to cover administration expenses, but in no case to exceed 25 cents per horse-power. The bill provides rules and regulations governing the various activities of the Water-Power Commission. It does not, however, interfere with the jurisdiction of the State Public Service Commissions in regard to rates and conditions of service of the various public utilities coming in under the proposed law.

From the investor's point of view the law is not all that might be desired, for the reason that it places a term limit upon licenses and, at the same time, gives the United States Government a free hand in prescribing the terms and conditions under which licenses may be renewed in the event of the Government not desiring to take over the property.

The measure in itself, however, while not perfect, is so much better than no provision at all for the unlocking of the great water-power sources of the country in the interest of development and progress that it is a matter of general congratulation to be able to record its final approval.

We of the West who are particularly interested in hydro-electric development may now take comfort to ourselves. It needed something to really awaken the people of the United States to the conditions which confront them through the threatened obstacles in the path of progress for which they, the people, have to thank their own apathy as well as the hostility of the so-called conservationists who see danger to the country in every development project. Why there should be objection to the utilization of the snow-waters from the mountains it is indeed

hard to conceive. It means the construction of dams and storage reservoirs that provide a much needed commodity to farm lands and communities which, in the absence of storage facilities, are hard put to it for water supply during the dry months of the year. Needless to remind our readers that it is water power that turns the wheels of industry in a State like ours. To what good, then, shall the snow-waters pour their wealth unused into the ocean?

The only objections voiced, so far, to the much needed water-power development appear to have been born of the notion that some persons or aggregation of persons may make some money. A crime, indeed, to expect a substantial reward for one's labor and financial risk! Concerning this much-voiced cry of the professional agitator, a prominent San Francisco newspaper observes:

"There is no greater exhibition of folly than the fear of extortion on the part of those who at their own risk produce electric current, whose selling price is to be fixed by representatives of the buyers."

There, in a nutshell, is the situation before the people.

But we are marching on. Already many of the greatest journals of the country have taken up the cause of water-power development, and representative men everywhere are calling public attention to the need of it. Governor Stephens, in addressing the National Electric Light Association at Pasadena the other day, told his hearers of the threatened shortage of two underground commodities whose supply was once thought to be inexhaustible, namely, coal and oil, and the absolute necessity of unrestricted water-power development to supply a much-needed fuel to take the place of those the demand for which threatens to exceed the supply.

The great East is, perhaps, not so interested in water-power development as the West, for obvious reasons, but in this same convention of the N. E. L. A., at which the greatest minds of the country were assembled in deliberation, hydro-electric development was one of the two leading features of discussion, and for the first time in the history of this Association a special section was organized relating to hydro-electric development and a permanent committee appointed whose business it will be to further prog-

ress of this most important branch of the industry, particularly in its relations with the Federal commission to be appointed under the new law.

In the report of the special committee on water power development at this convention the situation in California was commented upon pretty strongly. To quote: "The fact has been brought out in this report that \$710,510,000 is needed to finance hydro-electric construction for the next nine years in the West alone. The public must be brought to such a favorable attitude toward electric utilities that it will be prepared to furnish this money. How this may be brought about is a subject worthy of the earnest consideration of this body. It is obvious that the public is as deeply interested and as closely concerned in the need of this development as the power companies themselves, and it seems logical that the benefits to each citizen need only be pointed out to him to gain his full interest and co-operation. The widespread education of the community should then be undertaken along the lines of the 'self-interest' appeal.

"It should further be pointed out that the success of this financing is likewise contingent upon a broad-minded policy on the part of regulating commissions, which must allow sufficient returns to the power companies, so that the investor may see a possibility of fair interest on his money. Indeed, it may safely be said that upon the adequate protection of the investor hinges the entire matter of power company financing. The function of a public utility commission has two aspects, the safeguarding of the interest of the public and, at the same time, a consideration of the welfare of the companies regulated, to the extent that they are enabled to maintain a proper state of health and adequate growth. We cannot urge too forcefully the broadest spirit of co-operation between such regulating bodies, and the electrical industry and the public, in order that the needs of the commonwealth may best be served."

So, out of the dark of confusion, brought about partly by indifference and partly by wilful misrepresentation, has come light. May that light grow brighter still.

## *Tidings From Territorial Districts*

### Alameda County District

When you think of Modesto you think of Charlie Northcutt, the genial district manager. Modesto is Spanish for modest, and that's Charlie. Charlie was acquired by "Pacific Service" when it took over the Sierra Company. Some of the boys say Charlie was the strong asset that led to the acquisition; anyway, Charlie and Modesto are synonymous. But now that Charlie is in our family we can't say much, as it might seem as though we wanted to flatter ourselves.

Well, it seems that a small bunch of the boys were permitted to attend the Pasadena electric convention and Charlie was included. Charlie was like a new toy, so the boys thought they would play with him. Charlie was born in Alabama, famed for true Southern gentility, and sustains the reputation. That's where the boys missed their guess. They didn't know Charlie knew a coon when he saw it, both kinds; that he had played possum, trapped badgers and shot craps; that he had gone to Sunday school; sometimes didn't. He had seen many a badger in a corner with dogs and bullies sallying about, so when he found himself in a corner with this bunch trying to get him he knew just where he was at.

It all culminated the night of the big wind-up show at Pasadena. There was to be a '49ers' camp for the edification of the eastern delegates. The boys agreed to take part, assuming the costumes and role of miners and cowboys. Charlie is tall and slender and made a good looking miner with a red shirt, broad hat and top boots. R. A. Gentis made a tough-looking cowboy, red bandana about his neck, spurs and all, and looked the tough part. The crowd was all about the dressing room and Gentis conceived the brilliant idea of flooring Charlie, and then sitting upon him with a little crowing—just to pass the time away. Gentis is small of stature but powerful in strength. It did not seem a fair deal for him to pick on poor Charlie.

Anyway, Gentis lit into Charlie. The two held together, then both went down

heavily on a cot. Gentis, on top, held his prey as they locked in rigid strength. Then they began to swerve from one side to the other, but Gentis, in his master-power, held his position. Then the struggle intensified; when with super-strength Charlie heaved and Gentis was flat on his face with Charlie sitting in the saddle of his back, Gentis pinned to the floor face down, helpless.

Perhaps Charlie couldn't do it again; anyway he did it. He says you can't guess a coon by looking at it.

(Next issue: How Charlie got even.)

The Kirsten Canning Company at Walnut Creek has built a new plant to do canning and will be ready for operation about June 15th. They expect to take care of the fruit canning in the districts of Walnut Creek, Danville, Lafayette and Ignacio Valley. At Pittsburg, the Paladini Fish Company is running a large storage and refrigerator plant for the handling of the fish industry. This is a new concern.

The city of Martinez is rapidly progressing with some \$400,000 worth of street work, and within the next few months will have the best laid out and finished streets of any of the towns in this vicinity. The county is also going ahead with some \$2,600,000 worth of highway work which when completed will give the motor tourists some exceedingly beautiful drives through Contra Costa County.

The girls who, through the kindness of the P. S. E. A., are entitled to swim at the Y. W. C. A., had a get-together meeting Thursday evening, June 10th. They met at the plunge at 5:30 and after a good time swimming journeyed to the third floor and enjoyed the eats that had been prepared. Each girl paid the small sum of 35 cents and there was plenty to eat; no one left hungry. Miss Edyth Case was elected captain of the team. They had such a good time that they plan to have a meeting of the kind once a month. Misses Case, Westlake and Crowley were among the adepts at swimming.

Miss D. Mattison and Miss A. Esmond of the Oakland bookkeeping department have joined the "Engagement Ring Club." This department now has seven members in the progressive club.

Ray Biven, the distinguished looking, elderly gentleman at the Oakland order counter, took a short session in "penny ante" last Saturday night. Ray will probably walk to work till the 25th.

Arthur Magill, the expert telephonist of the Oakland bookkeeping department, is going to Canada during his vacation. Those wanting Arthur to bring back a bottle of Canadian cough syrup please form in line at the Clay Street entrance.

Trapped in the bottom of a manhole at Fourteenth and Broadway, Oakland, which was filling with scalding steam from a valve which had burst, J. J. Tracy of Station "C," was heroically rescued by Chas. A. Carlson, foreman of the work, who risked his life to save Tracy from death. James was repairing steam mains and had gone down into the manhole to open up the valve when, in turning it on, the valve burst, filling the hole instantly with a dense cloud of live steam. He quickly mounted the ladder, pained with the cooking heat. Charlie fought his way to the hole and hearing cries for help plunged into the roaring cloud of steam guided by the voice only, succeeded in grabbing James and pulled him to safety. Tracy was badly burned about the face, arms and legs, although he was wearing double clothing as a precaution against escaping steam. He is rapidly recovering we are glad to report.

The east end of the Alameda County district will pass through the dry year much better than we at first thought. On the first of May there were three billion gallons of water impounded in the Calaveras dam. The directors of the Washington Township water district have succeeded in having this water released into Alameda Creek, and have placed temporary dams in the bed of the stream which has resulted in raising the water levels all over the valley.

The main factor in the prosperity of this district this year is "Pacific Service," as 90 per cent of the irrigation is being done with electric power.

San Leandro treats the wayfarer right. She is completing a line of electroliers fed by an underground system that extends along East Fourteenth Street from the eastern to the western limits. This gives San Leandro a well lighted avenue two miles in length.

Four of San Leandro's force, under the care of Mr. Shuhaw, enjoyed the trip to Stations "A" and "C" to the load dispatcher's office and to the gas station on May 25th. Few people realize the amount of labor and material expended in creating kilowatt hours and cubic feet. San Leandro's four felt that they are much wiser now than the average person that snaps the button and has light, or lights a match and has boiling water.

We wish to announce from Alameda County the establishment of a factory recreation course under the auspices of the Oakland Y. M. C. A. This course is for the promotion of industrial recreation, especially during the noon hour. Each Tuesday night representatives from the several industries assemble at the "Y" and spend about two hours in learning the tricks of indoor recreation and how to transfer the tricks to outdoor work. After the gym. period the boys gather in the dining room for a repast and for a general discussion of the work under way and how to interest the employees of the different plants in the games they are mastering. Plant recreation has come to stay, and we expect that within the very near future the large manufacturing industries will be building recreational centers for the use of the employees at all times, such as volley ball, handball, basketball and tennis courts. Space for soccer and modified soccer, indoor baseball on an outdoor scale and many other varieties will likely be provided.

We wish to extend our hearty thanks to the Y. M. C. A., especially Mr. Cushman and Mr. "Bud" Kearns, for their interest in our welfare. Following are the plant representatives: Andersen and Stevens from Electrical Distribution; Mann, Day, Raab, Tyler and Perry from Gas Generation; Micco and Jackson from Electrical Generation.

The industrial recreation department of the city of Oakland is working in conjunction with the Y. M. C. A. among the employees of the several industries. A baseball league is under way at present

with several entries. The P. G. & E. Oaks won their first game against the Mazda Lamp Works team, 9 to 7; later beat the Standard Oil team 12 to 8 and lost to Hall-Scott Motors 7 to 2. The last game with the pipefitters of the Bethlehem Shipyards was won by a score of 8 to 4, neither team scoring until the eighth inning, when the shipyard team put across their four. The Oaks came back in their half with four and won out in the ninth with the necessary tally. We wish to thank the association for the support accorded the team which made it possible for us to get into the local league.

The lineup of the Alameda District is as follows: Lyons, catcher; Mann and Figeroid, pitchers; Kitto, first base; Raab, second base; Tyler, third base; Anderson, shortstop; Godbier, left field; Meillette, center field; Risendorph, right field; Smith and Washem, utility.

One of our former players, Harold Gregor, is now with the Calgary team. He has been doing very nicely and is well liked. His team is leading the league at the present time.

During the past month classes from the Oakland Technical High School, Alameda High School and University High School of Berkeley have visited Gas Station "B" in charge of their teachers. We are co-operating with the Board of Education and throwing our plants open for the inspection of the various classes in chemistry, etc., and giving the pupils a practical demonstration of the process of gas manufacturing.

The *Town Crier* announces the wedding of Harold M. Anderson and Miss Alice Wooley on June 12th. Mr. Anderson has been with the electric distribution department in Oakland for several years except for a period of nearly two years when he was overseas. Miss Wooley was with the bookkeeping department in Berkeley.

It is needless to say that their many friends wish them the greatest possible happiness.

YE REPORTER.

### Placer District

Fruit conditions in Placer District for the season of 1920, as gathered from large growers, are about as follows:

Peaches, 100 per cent of full crop. Pears show 85 per cent at the present

time. During the early part of June, or when pears reach the size of a small plum, it is expected that a certain portion of them will drop to the ground. At this time it is not possible to determine as to what extent such dropping will affect the total crop, but it is not expected that the results will materially affect the crop.

Plums, 40 per cent of the full crop; cherries, 80 per cent; quinces and persimmons apparently normal; grapes, which are just beginning to set, show a normal crop; strawberries are late in ripening, an average yield; raspberries and blackberries average. The canneries are offering 15 cents a pound for strawberries and contracting for cherries at \$200 a ton. All prices for other fruits are high. The first shipment of cherries from Auburn was made April 29th. These were sent east.

At the encampment of the Grand Army of the Republic of the Department of California and Nevada, held at Santa Barbara, George D. Kellogg of Newcastle was elected commander.

Mr. Kellogg is one of the pioneer fruit shippers of Newcastle. He was at one time the largest shipper of deciduous fruit at that place, handling in the neighborhood of 500 cars a season. Last year he sold his shipping business, but still retains his orchard holdings.

George D. Kellogg served with distinction in the Civil War, having enlisted August 6, 1862, in Company A, 23d Wisconsin Infantry Volunteers and served until the end of the war. He was under fire for more than 100 days under Generals Grant and Sherman. He was decorated by Governor Fairchild of Wisconsin for conspicuous bravery in the charge of Vicksburg and given the rank of captain.

The Placer Union High School of Auburn recently won at Reno the first annual University of Nevada interscholastic track and field meet since the war with a score of 46 points. Reno was second with 22 points, thereby obtaining permanent possession of the Nevada League cup, same having been won for the third time.

Drum, Nevada and Placer Districts, on April 24th and 25th, entertained the visiting members of the Pacific Service Employees' Association. The success of our meeting, particularly at Auburn, was largely due to the hearty co-operation of

the residents. In our little town of a population not much in excess of 2000 people we housed 175 guests, independent of the hotels.

The trip to Spaulding in a special train from Auburn and return was enjoyed by all. At Smart the passengers, numbering considerably over 500, were transferred to company flat cars which landed the passengers at the concrete mixing house above the Spaulding dam. Jim Martin and Lu Hartsock counted on feeding 300 or 400 people, but served meals to 570.

The snow at Spaulding ranged to five feet in depth. This afforded a great deal of amusement, not only to the visitors accustomed to snow, but to many people who had never before had an opportunity of actually touching snow. The soft snow developed experts in throwers and stoppers of snowballs. Charles McKillip and Capt. Baldwin were in the latter class, Earl Fisher a close third.

A beautiful auto-camping site is now opened for tourists in the town of Auburn. Public-spirited citizens have donated their time and money to make this place attractive. All modern conveniences are included. Rest rooms, shower baths, electric lights, running water, tables and benches are furnished free. A nominal charge is made for fuel. A more delightful camping place, in the cool Auburn evenings, cannot be found.

Our company is erecting two new cottages at the Wise Power House. These are expected to be ready for use by July first.

"Pacific Service" as always. Most people, when they read of the Pacific Gas and Electric Company, think of service for electricity or gas, but in some districts, especially those in the foothills of the Sierra, water for irrigation is one of the company's prime assets. Extended interruptions to water service mean that towns are left without fire protection and domestic water, that orchards and ranches are drying up, thereby causing tremendous losses to property owners.

It is therefore very necessary that service be given as nearly continuous as possible. This could be easily done if all the gophers and ground squirrels would hibernate for twelve months in the year, if the iron would not rust and wood rot, and children did not like to make dams and waterways of their own, and some

grownups would use discretion. But all these things are with us to stay, so it happens that once in a while it becomes necessary to make repairs and make them in a hurry. A repair of this nature was recently made on the Gold Hill canal in the Placer District, when seven hundred feet of 30 inch pipe and two hundred feet of trestle ten feet high were installed in fourteen working hours. Some action we say!

Mr. Lininger is water superintendent in charge of the work, and Mr. Lester Ruth, the foreman on the job.

H. M. COOPER.

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### Chico District

#### MORE POWER TO RICE GROWERS

(From the *Chico Record*.)

Motors driving pumps feeding the irrigation canals which flood the rice fields surrounding Chico demand more power than the combined commercial and residential supply of electricity used in this city.

A system of Venetian waterways which draw water from the Sacramento River and the Western Canal has commanded the attention of not less than 50 electrical workers who are constantly engaged in assuring a constant stream of water to the cereal paddies which depend on heat and water for success.

Manager H. B. Heryford of the Chico District made an inspection of the power pumping plants supplying the rice fields for the purpose of encouraging power conservation on a chain of pumping systems which draw 1160 horsepower day and night for five months in the year.

Under the orders issued two months ago by H. G. Butler, power administrator for the State Railroad Commission, users of electricity are required to cut down the consumption 20 per cent. This order will cost the Phelan-Parrott irrigation system not less than \$16,000.

A large Diesel engine mounted on concrete haunches is now being set up as an auxiliary plant for the Phelan-Parrott pumping plant which feeds from the Sacramento River on the Phelan property. This pump house contains five pumps capable of drawing 16,000 gallons a minute. Two of the five are in operation already sucking water from the Sacramento in a mighty stream which siphons



from a large concrete tank through a pipe 1000 yards long, and out into the Phelan-Parrott irrigation waterway.

Where does this rushing stream go?

It feeds 300 acres operated by Leo Doyle, 1800 acres in rice on the Phelan ranch, 2100 acres on the upper Parrott grant and then flows down to a relift pump which raises the stream ten feet and it then feeds 1800 acres on the Parrott ranch.

The relift pumping station raises the water through three centrifugal pumps operated by three motors, two of fifty and one of twenty-five horsepower capacity.

The water is returned to the Sacramento River through Eddy Lake after flowing through the paddies of the last 1800 acres. At the relift station an auxiliary Diesel engine is also being installed for the purpose of furnishing auxiliary power in case of a shortage.

The engine at the Sacramento River pumping plant is the largest crude oil burning machine which has ever been installed in Butte County for agricultural purposes. Compared with the compact motor which pulls the same load, the Diesel engine is six times as large and ten times as costly. The cost of operation, the operators hope, will not "cost more than running an electric motor of the same size."

The rice industry has much more than doubled the electrical demands during the summer months, Mr. Heryford said. The Phelan-Parrott rice acreage requires more power than any gigantic manufacturing establishment in a large city.

The water supply of the Sacramento River will not drop to the low point predicted by the State Water commission, according to H. Hubbard, manager of the irrigation system on the Phelan ranch. If it should, the rice crop would be a total loss as the irrigation streams will fail at a time when water is needed most and the paddies must be submerged.

While the Pacific Gas and Electric Company made installations without assuming responsibility for a power shortage, tests have been taken by Mr. Heryford to show that the power lines are holding up under the load. Every test made showed a high voltage and a continuous service.

An idea of the gambling spirit which prompts the rice grower may be gained

from the fact that 7830 acres of the 12,420 supplied with power have been planted as new acreage.

Baber, Jacobson & Baber have 1470 acres planted on the west side of the Seven Mile lane. This acreage is supplied by water from the Western Canal, a gravity system to Dodgeland, but the stream "runs uphill" along the Seven Mile lane. Two relift pumps are located over the irrigation canal and in a stretch of six miles the water is twenty feet higher than it is when picked up from the Western Canal.

A feature of the canal which carries this water is that it was built in less than 30 days without the aid of a steam shovel. The water on this system drops into the rice paddies from the northwest corner of the ranch and the small irrigation canals parallel the main waterline when the water is fed to the cereal.

Electricity is used on this system for relift work only as the water finds its way out of the paddies and back into the Western Canal, the source of supply.

On the Goodspeed road Heryford inspected the 155-horsepower plant on 640 acres of rice owned by J. H. Porter, formerly of Colusa, but now of Chico.

This acreage is supplied by the Western Canal Company and is fed into the paddies by means of two sets of relift power pumps.

Rice growers whose places border on the highway south from Chico do not depend on the Sacramento River or the Western Canal. James Van Loben Sels is farming over 600 acres south of Durham by means of six 20-horsepower pumps attached to wells. A generous supply of water is thrown out into the irrigation canal when the electric switch is thrown in at any of the six pumping stations.

J. H. Jones is farming 100 acres of rice through a 50-horsepower motor spinning a centrifugal pump attached to a new well. A new well was recently sunk on the L. M. Culver property and a 50-horsepower motor is the means by which water is pumped to feed 120 acres.

Only one gasoline engine was doing pumping duty when Heryford made his regular rounds. This was chugging away on the J. White rice plantation where 100 acres of rice is growing and fed by well water.

On his recent tour Mr. Heryford found four Diesel engines being set up in readi-

ness to drive power plants if electricity should be curtailed by the water shortage.

In the network of silently flowing streams of harnessed water the Butte-Glenn Water Users' Association receives enough water from the Western Canal to feed 1980 acres. The relift pump for this purpose is found at Dodgeland where 115 horsepower of electric energy pumps 24 hours a day for five months every year.

Rice culture in the Chico District has made it necessary for the power concerns to double their output in the past two years, with the same power houses developed to a greater degree of efficiency. The Chico substation, which supplies the bulk of the rice grower's load, is now being altered at a cost of \$35,000. Giant transformers, the sentinels of large motors, are stationed on poles outside the pumping plants, the receivers of raw electricity which is refined to whirl motors, the means of keeping rice under water and lining the pockets of Butte agriculturists with gold.

### Nevada District

The accompanying illustration gives views of an old type logging truck, the use of which has practically gone out of existence due to improved methods of transportation.

This truck was built nearly fifty years ago for the Marsh Lumber Company and was purchased by the Pacific Gas and Electric Company at the time the Deer Creek Power House was built and was used in hauling material from Nevada City to Deer Creek, twenty-four horses being required to haul the truck and its load.

The wheels are the most interesting feature of this equipment and were made by sawing a cut off a large tree, placing

the tire and hub in position and trimming off the edges with an adz.

The original cost of this truck was approximately \$500, and it would be practically impossible to duplicate it due to the fact that the old-time wagon builders have all passed away and none of the present wagon workers would undertake to build one for twice that amount.

This truck has recently been sold to the Fowler Lumber Company, who intend to rebuild it and use it in their lumber camp as a trailer for a traction engine.

L. H. HARTSOCK.

### Vallejo District



Old type logging truck, with primitive braking system.

On May 16th the employees of Vallejo District with their families, about 100 strong, celebrated their annual picnic.

Through the courtesy of Mr. Owen Duffy, business manager of the Napa State Hospital we were permitted to enjoy this out-

ing in the beautiful Rector canyon north of Napa. From the dinner we knew we were still living in a land of plenty and culinary art.

In the afternoon games of contest prevailed, the headliner of which was a baseball game between the office force and the gas works. V. Von Hemm pitched the office gang to victory, while J. Sauer, in the box for the other team, gave a good account of himself. H. B. Martell, our genial salesman, was the star player for the office team, knocking a home run with three men on base at a critical point of the game.

The evening certainly marked the end of a perfect day, with many pleasant memories to recall.

Vallejo was represented at the recent Chico event by a party of four, who are warm in their praise of the hospitality extended them by the Northern districts and the manner in which they accomplished such a successful event. We

would certainly enjoy visiting Chico and de Sabla again.

Vallejo is still growing and progressing. If you don't believe it, ask our meter man how many new sets he has a day. Bungalows and dwelling houses are sold or leased far in advance of their completion.

The monthly official reports from the Bureau of Supplies and Accounts at Washington for April and May concedes the Mare Island Navy Yard the honor of being first in efficiency and second in the number of men employed of all the U. S. navy yards.

According to figures on the number of men employed, New York leads, Mare Island is second, and Philadelphia is third. At New York the force totals, according to the official report, 11,876, Mare Island is employing 8782 and additional men are wanted immediately in almost every craft on the island; Philadelphia has but 8456 men employed.

Work has been turned out at Mare Island during the month of April with a smaller percentage of overhead than any yard in America and has turned out more rapidly with a better percentage of efficiency than any other station. All this is due to the wonderful system of co-operation that exists in all departments from the youngest messenger to the commandant.

V. Von Hemm, formerly our warehouse man, has stepped up to the position of assistant accountant.

Vacation time has arrived, and judging from the different eligibles there is going to be a serious dearth of fish and wild game in California.

A. J. STEPHENS.

### Redwood District

Mr. J. W. Rose of Marysville district has been transferred to the Redwood district to fill the position of assistant electric superintendent, made vacant by the resignation of T. W. Snell. Mr. Snell has accepted a position with the Southern Valleys Power Company as electric superintendent.

Mr. George E. Graft of San Jose has signed a lease with the Government for

a term of years for a new postoffice to be erected at a cost of \$50,000 on Mr. Graft's property on the corner of Broadway and Winslow Streets, opposite "Pacific Service" headquarters in Redwood City.

The Aviation Day Celebration given May 1, under the auspices of Redwood City Post No. 105, American Legion, and the Fire Department, was a grand success. The streets were lined with people, and they were all taken care of by a very efficient committee. The parade was a surprise to all and the American Legion boys deserve a good deal of praise for the work they did. All afternoon the air was filled with planes from all parts of the State, performing the latest stunts known to aviation.

The new main office of the Redwood district, now being erected at Redwood City, is nearly finished. This building when completed will be the finest office building in Redwood.

Our gas superintendent has moved from our B Street office to his new building at Fourth and C Streets, San Mateo. The new building gives this department larger and better quarters.

E. W. FLORENCE.

### San Joaquin District

The convention of the Pacific Coast Advertising Club Association was the largest the association has yet held on this coast, being attended by several hundred delegates. Caravans from Oregon and Washington on the north, and Los Angeles and San Diego on the south, and from all the principal cities in California, arrived on Sunday, May 23, and the week following was given over to its activities and entertainment. A caravan of 400 of its people started for Yosemite Valley May 26, as one of Stockton's largest advertisements.

One of Stockton's best advertisements is that there are 100 manufacturing establishments located here, having an aggregate annual payroll of \$8,000,000, and that the city has more than doubled in population in the last ten years.

J. W. HALL.

## San Francisco District

The garage industry in San Francisco seems to be moving ahead in leaps and bounds; the latest being one erected at the corner of Market and Dolores Streets, which will be the home of Kresteller and Stewart. This is said to be one of the largest garages in the West, having a frontage of 147 feet on Market Street, 95 feet on Fourteenth Street and 316 feet on Dolores—275 feet in size. The ground floor contains woodworking, painting, trimming, electrical, stock room, offices and sales rooms, while the entire basement is devoted to general garaging.

This place is to be supplied by "Pacific Service" and, needless to say, will be one of the well-lighted show places in its line.

F. S. GRAY.

The industrial and house-heating department reports the installation of a complete house-heating system for the new electrical home in St. Francis Wood, carrying out the theme of this home in which the use of electricity is adapted to nearly every household need. The control of the new gas furnaces is entirely electrical.

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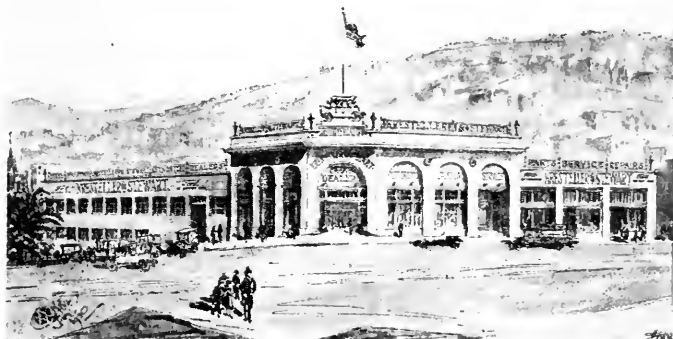
cated. Where a large volume of heat is required it is not yet feasible to apply electricity at prevailing rates, and so, even in the model electric house, gas has been called upon to play the part of house heating.

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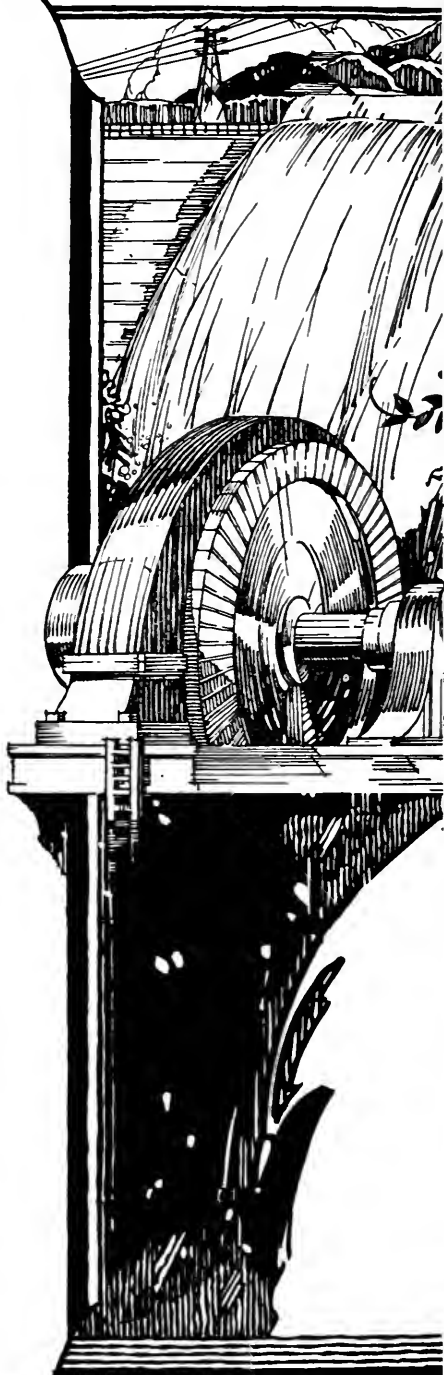
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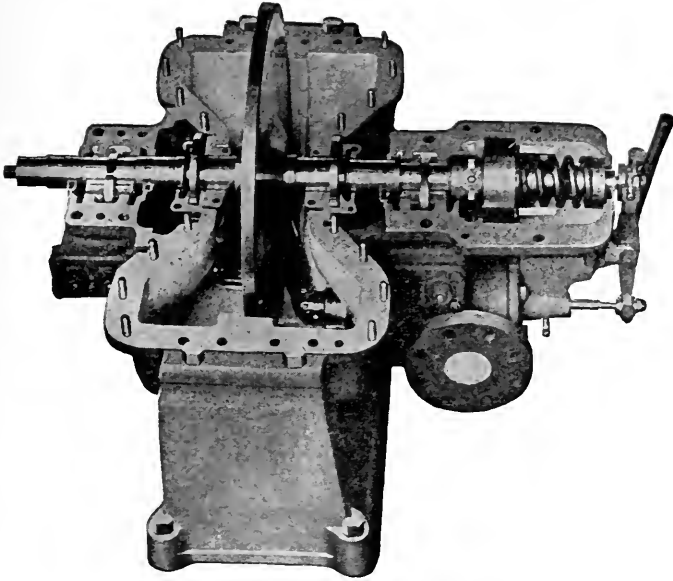
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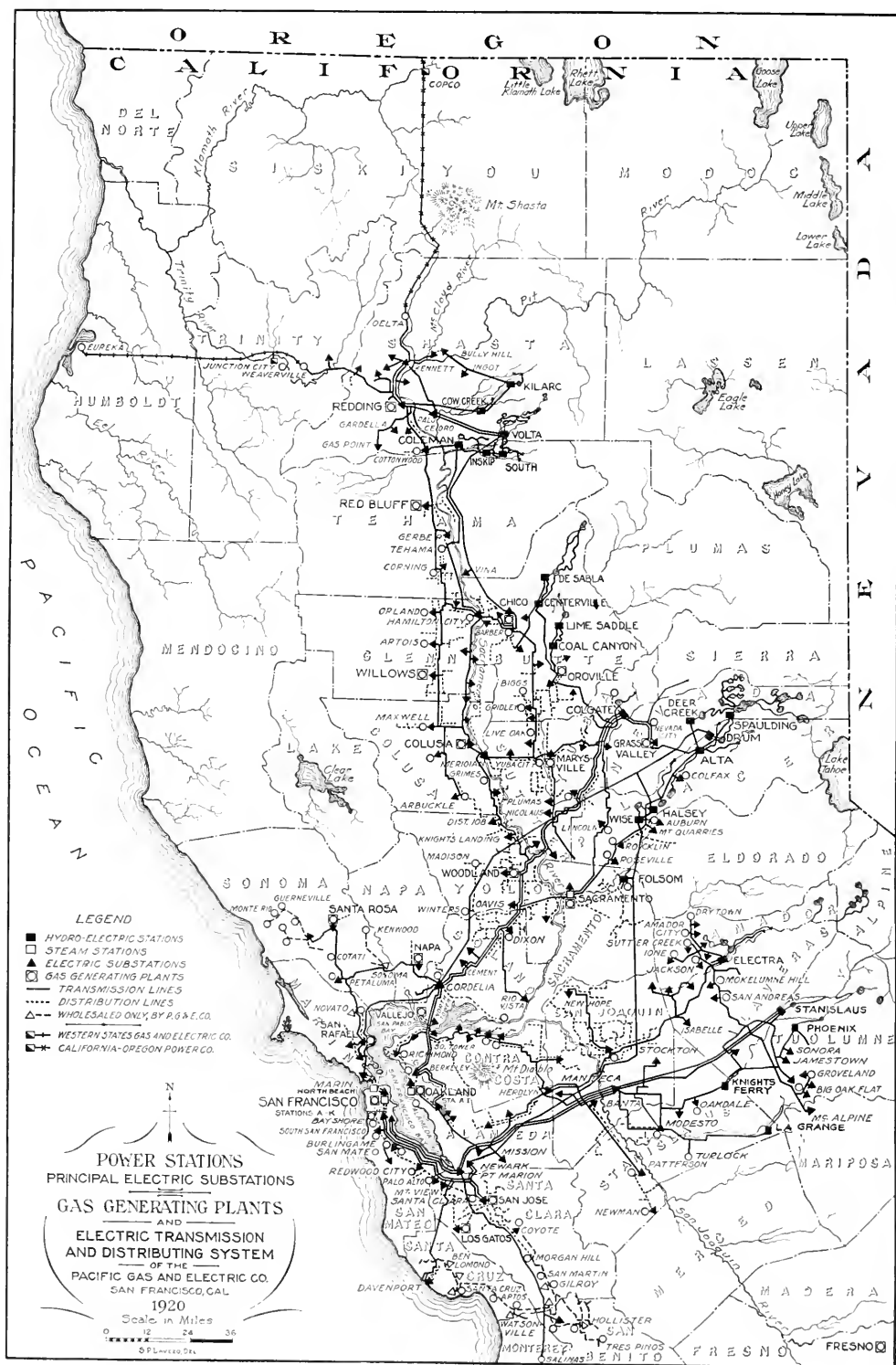
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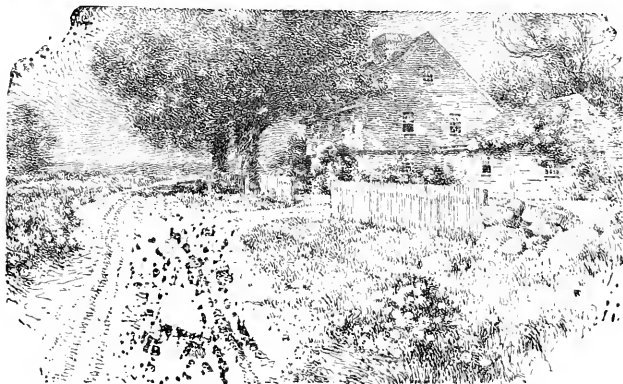
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PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



"CHIMNEY ROCK" ON THE BUTTE CANAL. DE SABLA DISTRICT

Vol.  
12

JULY 1920

No.  
2

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# Pacific Service Magazine

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Number 2

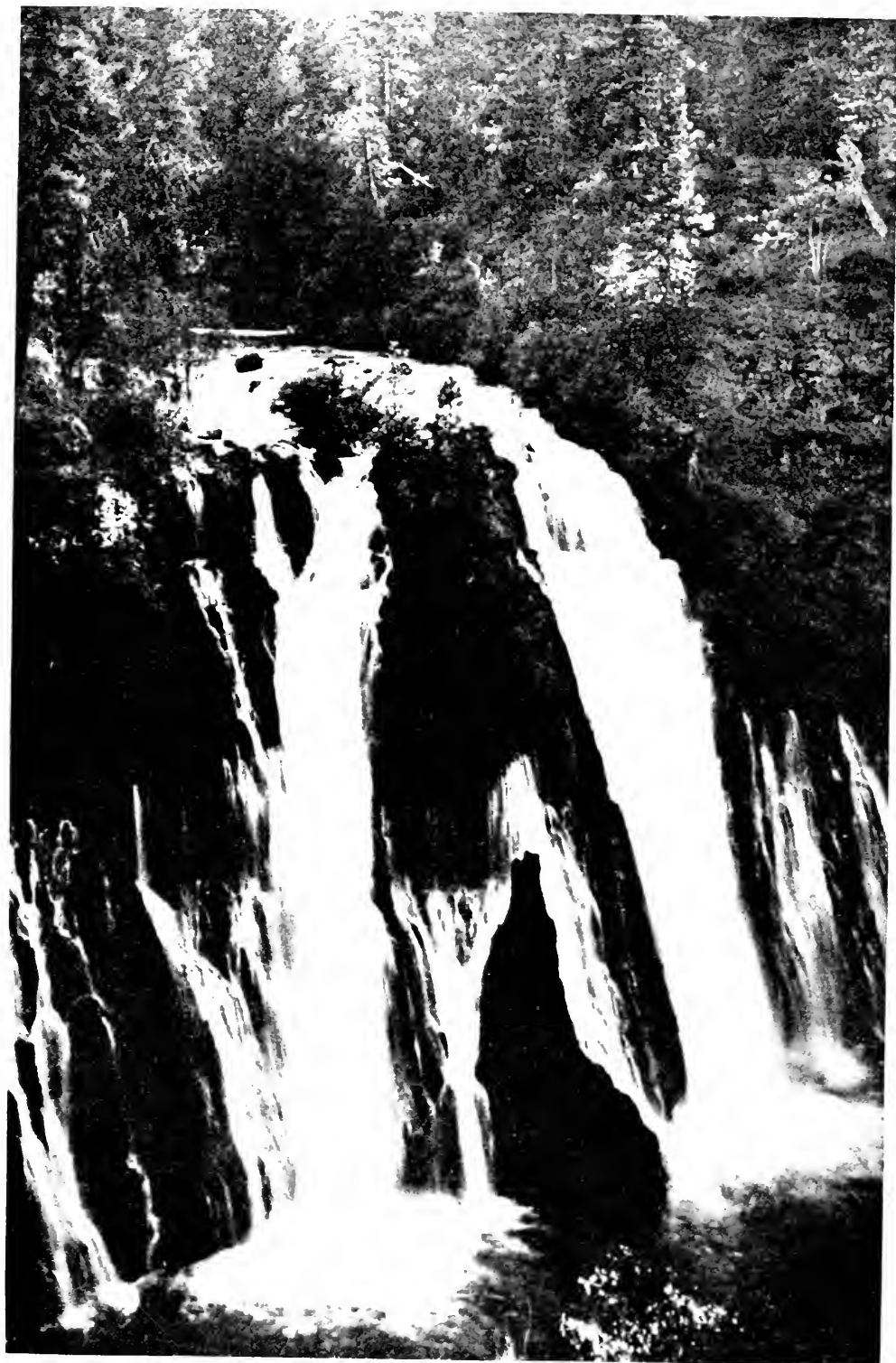
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Illustrating regulation of stream flow by lava dykes. Burney Falls, in the Cascade Mountains of California.

## *Potential Water Power in California and Progress of The Power Industry in the West*

By FRANK G. BAUM

IN ORDER to understand the water power conditions in California it is necessary to give a brief description of the general topographic and geologic features on which the water power depends. It will be seen that widely different conditions exist on various streams, some being highly valuable for water power while others, which to the inexperienced seem equally valuable, are of very little value, at least to the present generation.

The outstanding geologic feature which, together with the warm Pacific air currents, really makes California is, of course, the Sierra Nevada range, popularly called the Sierras. These, together with the Southern Cascades, extend in an almost continuous line generally along the eastern boundary, and about 150 miles from the west coast. Along and near the coast there is the Coast range, which consists generally of several parallel ranges, and extends the length of the State. This range is much lower than the Sierras and Cascades, being only a few hundred to a few thousand feet in height. In this range there is not much water power possible; and this is also true of the mountains of Southern California, which are south of the Tehachapi Mountains. Between the Coast range on the west and the Sierras and the Cascades on the east there is the great interior valley, the southern part of which is called the San Joaquin Valley, and the San Joaquin River drains this valley northward to the San Francisco Bay. The northern part is called the Sacramento Valley, and this is drained southward to the San Francisco Bay by the Sacramento River.

The primary streams of the Sierras and Cascades have their sources at the summit of this range, at elevations of 14,000 to about 6000 feet and flow westerly to join the San Joaquin or Sacramento Rivers. The valley is about 400 miles long by about 40 miles wide, and this will, of course, be the great agricultural region of California.

San Francisco Bay into which this valley drains is the natural outlet for the products of the great valley, and a large industrial region is growing up around this bay. In Southern California, largely around Los Angeles, a second large industrial region is growing rapidly.

The Sierras extend from Mt. Whitney on the south to the north fork of the Feather River on the north, the north line of the range being marked roughly by the line of the Western Pacific Railroad through the mountains.

The Southern Sierras from Mt. Whitney to Mt. Lyell are the "high" Sierras, the elevation of this range being several thousand feet higher than the Northern Sierras, which may be said to extend from Mt. Lyell to the north fork of the Feather River.

From the north fork of the Feather River and to the northern boundary of the State we have the southern end of the Cascades, which extend from Washington and Oregon into Northern California. The high peaks of this range are Mt. Shasta (14,380 feet) and Lassen Peak (10,600 feet).

The Sierras are a granite range, while the Cascades are generally lava, and this geologic difference, together with other

remarkable geologic features, makes the Cascades of very great interest from a water power standpoint. And, it is best to consider the water power features of this region first, because of the very remarkable water flow conditions, and to then describe the Sierra water powers, where the water flow must be supplemented largely by storage of water in high mountain reservoirs.

According to geologists, northeastern California was an area of low elevation (an extension of the Sacramento Valley) after the Coast range and the Sierras were formed. Then came the Cascade range, which extends from Washington to Oregon into northeastern California (the southern line of

which is roughly along the north fork of the Feather River) and closed the gap between the Coast range and the Sierras. The southern extremity of the Cascade range thus formed a dam—in fact, a series of dams—across the outlet of what was the extension of

the Sacramento Valley into northeastern California, and formed the Pit River basin, covering an area of about 5000 square miles. Similar small lava dams have later been formed across several of the branch streams of the Pit, namely, Fall River, Rising River, Crystal Lake and Burney Creek.

The precipitation on this immense lava plateau largely sinks through the lava, and being cut off by direct outflow by the lava flows across the old stream channels, is stored in lava-covered storage basins, and emerges in very large springs, almost perfectly regulated. Such roughly

is the explanation of the remarkable water conditions of the Pit River basin on which about 80 per cent of the low flow of the Sacramento River at Red Bluff depends.

What probably has happened in the Pit River basin, formed by the inflow of the Cascade range, as explained above, is illustrated in a small way by Burney Creek. A lava flow flowed across the old stream bed and lifted it more than one hundred feet, which has resulted in forming Burney Falls. At the falls a spring of about 160 cubic feet a second rises or comes through the lava layers, as shown plainly in the photograph. This amount of water is more than is used by

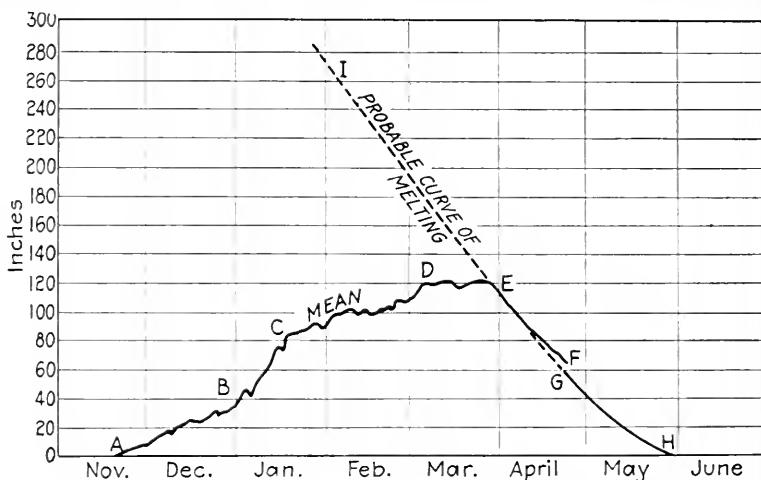
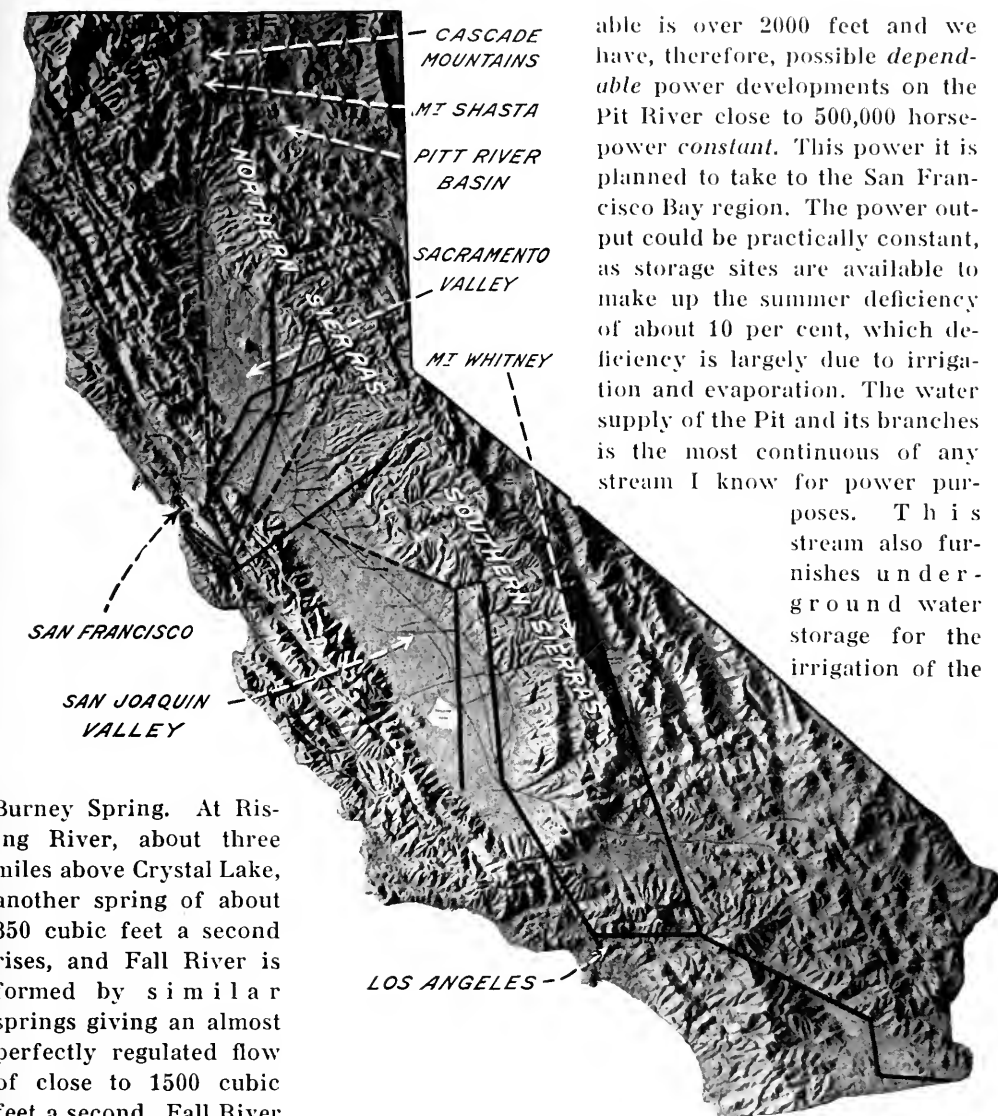


Fig. 1. Normal snow depth at summit of Sierra Nevada Mountains.

all the San Francisco Bay cities combined. The elevation of the stream bed by the lava flow probably once formed a lake many miles in area, which area has since been filled in by lava debris, and now forms a valley, being much larger, however, than the valley that is commonly called Burney Valley. The underground storage basin formed by the laval flow across the stream bed gives us the water of Burney Falls.

In the Pit River basin, about eight miles east of Burney Falls, there is a similar spring at Crystal Lake, near Cassel, giving about the same quantity of water as





able is over 2000 feet and we have, therefore, possible *dependable* power developments on the Pit River close to 500,000 horsepower *constant*. This power it is planned to take to the San Francisco Bay region. The power output could be practically constant, as storage sites are available to make up the summer deficiency of about 10 per cent, which deficiency is largely due to irrigation and evaporation. The water supply of the Pit and its branches is the most continuous of any stream I know for power purposes. This stream also furnishes underground water storage for the irrigation of the

Burney Spring. At Rising River, about three miles above Crystal Lake, another spring of about 350 cubic feet a second rises, and Fall River is formed by similar springs giving an almost perfectly regulated flow of close to 1500 cubic feet a second. Fall River is the most remarkable river formed by springs of which I have knowledge. The four springs above total about 2300 cubic feet a second, and other springs in the basin raise the total for the Pit River above Peck's bridge to about 2500 cubic feet a second. The Pit River, formed mainly by the above springs, has its source east of the summit of the Cascades and has cut its way through the range to the Sacramento Valley.

The total economic power drop avail-

Topographic map of California, showing power lines running north and south from main water-power sources in the mountains.

Sacramento Valley lands of more than 1,000,000 acre feet per year.

South of the Pit and to the north fork of the Feather River there are numerous small lava streams but with few storage sites, on which a number of developments have been made and a few fair power sites still exist undeveloped.

The north fork of the Feather River



also has a spring source of about one-fourth of the Pit flow, as above given, and fortunately there is on this stream probably the best artificial reservoir site in California (not considering Lake Tahoe, whose waters flow into Nevada), having a storage capacity of about 300,000 acre feet. Unfortunately, however, in years of very deficient precipitation the reservoir does not fill.

On the Pit River and its branches and the small streams to the north fork of the Feather River and on the north fork of the Feather River itself there can be developed about 1,000,000 horsepower to 1,000,000 KW. in dependable water power. Because of the excellent water supply conditions the actual development cost (not including transmission) of this power will be generally from \$25 to \$50 per KW. less than in the Sierras, and sometimes the difference may run as high as \$100. I have advocated the development of the Pit River territory for a number of years, especially the development of Hat Creek and Fall River power as a first step to the larger developments. The distance of transmission from the Pit to San Francisco Bay will be about 200 miles, and the other power 150 to 175 miles. This power should go to the San Francisco Bay region after supplying the territory of northern California. Near the northern boundary of the State there is the Klamath, a good power stream, but because of

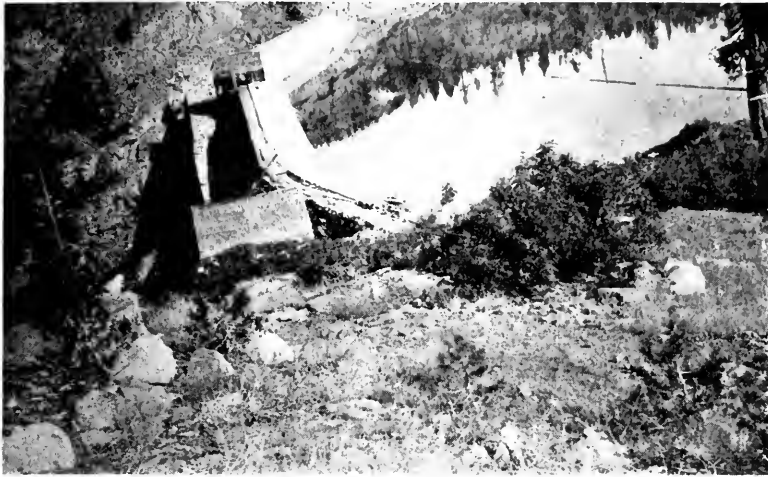
the distance to San Francisco Bay this power should be used largely for the Southern Pacific Railroad's electrification of its route over the Siskiyou Mountains and for industries on the coast, etc., requiring cheap power. Some surplus may



Yosemite Falls, showing granite formation of the Sierras as distinguished from the lava formation of the Cascades.

finally go to San Francisco Bay (power is now being transmitted to the Pacific Gas & Electric Company from this river). WATER POWER CONDITIONS IN THE SIERRAS

Immediately we go south from the north fork of the Feather River the water power conditions entirely change. This is due to the granite formation in which generally little ground storage exists, and the



Example of rock-fill dam built about 50 years ago and still in successful service.

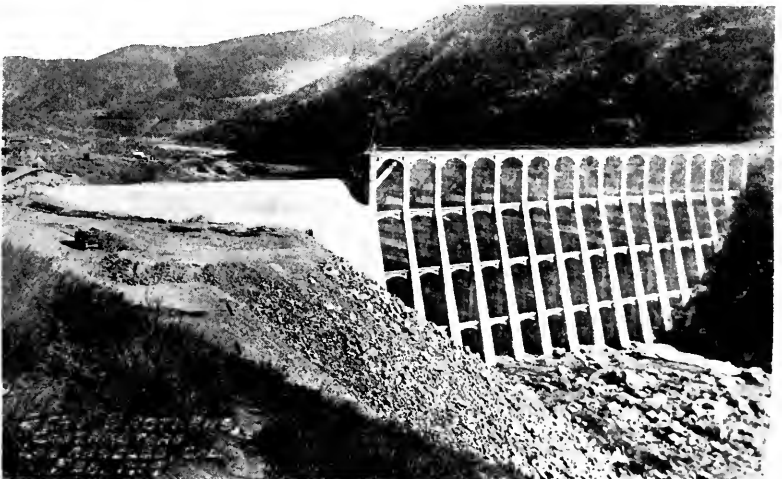
water supply from the rain and snow must generally be supplemented by water storage. Unfortunately there are not many exceptional reservoir sites, that is, possible reservoirs of 100,000 acre feet or more.

The mean precipitation varies from about 30 to 35 inches, depending on the altitude, and also increases from south to north. In the high Sierras the precipitation is largely in the form of snow, which really forms ice and gives high stream flows until midsummer. After this time the streams fall off rapidly, and during the late summer and fall the flow is only a small percentage of the mean. Fig. 1 shows the mean snow depth at Summit, elevation 7100 ft. It is the work of Professor Le Conte. We usually develop for about 75 per cent of normal stream flow in the granite sections of the mountains.

Due to the water conditions as shown the water power possibilities cannot at all be safely determined from the mean precipitation or the mean stream flow, together with the head or drop obtainable. But the measure of *dependable* and *economic* power is almost alto-

gether determined by the capacity of available reservoir sites and their location relative to favorable power drops. To take the mean flow of the streams and the mean head obtainable one may get the theoretical or (hysterical) water power possible, but this leads only to error and bankruptcy.

What we must do to get a fair estimate of the economic power (for this generation at least) is to determine the amount of storage available, and from this we can determine the flow that can be maintained during the low water period. And, for



Example of multiple arch dam. Height 130 feet, and containing about 19,000 cubic yards.

safety we must usually have storage available for the entire flow for 150 to 200 days, and generally close to 200 days' storage is advisable in the Sierras. Then, knowing the fall obtainable we may estimate the water power available.

Doing this we find there is much less *high class dependable* primary water power possible in California than is usually estimated. The figures given usually run from 3,000,000 to 6,000,000 horsepower, but for the present consideration the lower figure is high enough for primary power, although in time much more may be ultimately developed as secondary power, or by providing more expensive storage primary power increased.

#### WATER POWER IN THE NORTHERN SIERRAS

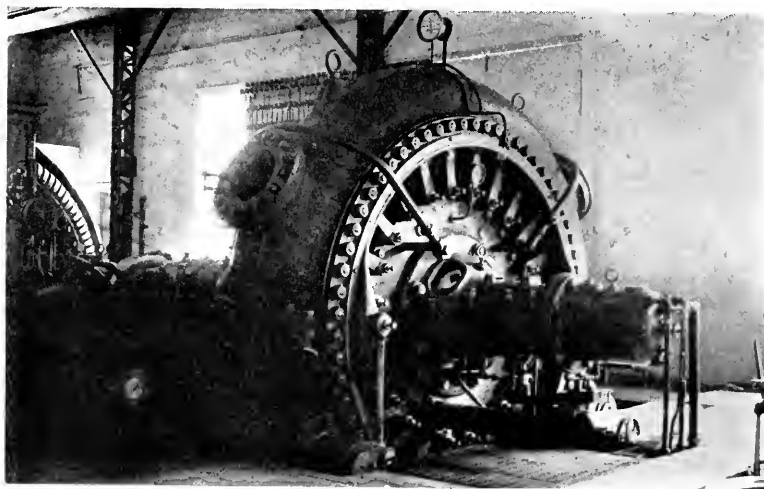
In the northern Sierras we have the



Example of constant angle arch dam. Height 160 feet, containing about 50,000 cubic yards of concrete.

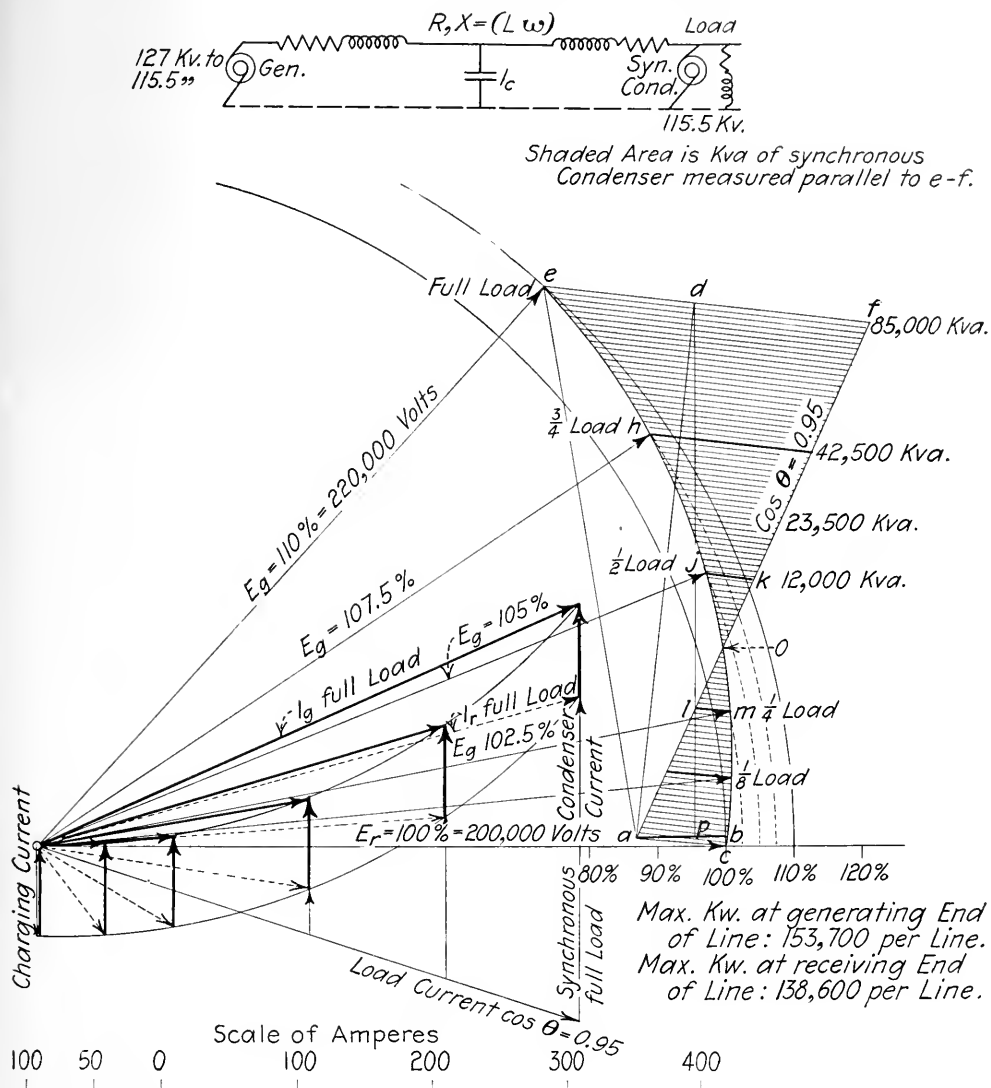
main streams and their general power characteristics as follows: Middle and south fork of Feather River, which have little water power value. The north fork of Yuba has a good low flow (about 200 cubic feet a second) due to gravel storage, but no good storage sites; on the middle fork and south fork of the Yuba the conditions are, however, reversed, for we have very little gravel storage but a number of good reservoir sites and a number of good power sites still undeveloped. The north fork of the American River has

practically no storage sites and has little water power value, whereas the middle and south forks of the American have some good storage sites and some very good power sites yet undeveloped. The Mokelumne River is not a good power



Turbine in Centerville power house, Pacific Gas and Electric Company's de Sable development. Erected 1906, pioneer high head (550 feet) turbine.

Fig. 2 SYNCHRONOUS-CONDENSER CORRECTION OF POWER FACTOR ON 220,000-VOLT LINE



Line is 200 miles long. Shaded area shows size of condenser needed to correct power factor when generator pressure is varied from 100 per cent at no load to 110 per cent at full load by adjustment of potential by voltage regulator. Receiver pressure maintained constant by voltage regulator at 100 per cent. Power factor of load corrected locally by steam plants to 95 per cent. Synchronous-condenser maintains variable pressure drop automatically from 0 per cent at no load to 10 per cent at full load by varying power factor of receiver through variation in load. Synchronous-condenser maximum capacity is 85,000 kva. per line. Synchronous-condenser kva. required at no load (23,500 kva.) will regulate from no load to approximately 0.6 load. If two condensers are installed per line, each of 42,500 kva. capacity, then one condenser will regulate from no load to three-quarters load and two condensers will regulate from three-quarters load to full load. Length of line 200 miles. Conductor 500,000-circ.-mil copper, spaced 15 feet vertically. Resistance pressure including transformers is 10,000 volts; reactance pressure 90,219 volts. Transformers have 0.5 per cent resistance and 10 per cent reactance. Full load current at unity power-factor load is 400 amp. Charging current is 136 amp.



Wise power house, a part of the Pacific Gas and Electric Company's South Yuba-Bear River development.

peninsula, the largest market in California being in San Francisco.

The power from the Cascades, mainly from the north fork of the Feather River and the Pit, should supply the east bay region, including Oakland and vicinity.

On the east side of the Northern Sierras

stream, but has been partly developed, and some other sites are available, but storage conditions are not good. The Stanislaus is a good power stream only partially developed. The Tuolumne is, like the Mokelumne, not a good power stream. The Merced has one good reservoir site and several good power sites, but most of these are wholly or partially in the Yosemite National Park.

We see, therefore, that if we eliminate the Merced we have in the Northern Sierras only three *really good* power streams—the Yuba, American and Stanislaus—and from these streams there can be developed 500,000 to 750,000 horsepower, and probably a surplus of about 500,000 horsepower could be developed on these three streams over the future requirements of the central part of the great valley.

This surplus power from the Northern Sierras should be transmitted around the south end of San Francisco Bay to San Francisco and the peninsula, because only a small amount of power can be transmitted economically across the bay by submarine cables. Therefore, the surplus power from the Yuba, American and Stanislaus should go to the San Francisco

Sierras there can be developed about 100,000 horsepower on the Truckee, Carson and Walker, and, because of its location, this power should be used for the Southern Pacific Railroad's electrification of its route east of the summit and in Nevada and for the Nevada markets.

#### WATER POWER OF THE SOUTHERN SIERRAS

In the Southern Sierras we have the main streams and general power characteristics as follows: The San Joaquin River has a number of good reservoir and power sites, and the same is true of the Kings River. Many of these sites are located far in the mountains, and, on account of the very rough country, railroads are generally required for transportation, and this places a heavy burden on the power companies, especially for the initial developments. The San Joaquin is partially developed by the Southern California Edison Company and the San Joaquin Light and Power Company and developments are contemplated by San Joaquin Light and Power Company on the Kings. The Kern River has no good storage sites, hence the power output must vary widely during the year, but

the nearness to Los Angeles is of advantage.

On these three streams there can be developed about the same amount of dependable power as in the Northern Sierras, that is about 500,000 to 750,000 horsepower and probably a surplus of about 500,000 horsepower over the requirements of the lower San Joaquin valley can be developed. Part of this will be required for the Southern Pacific Railroad electrification of its route over the Techachapi Mountains and the remainder of the surplus should go to the industrial market of Southern California, the largest load being at Los Angeles. Some power can be developed on the Kaweah and Tule, but these plants must be small and should go to supply the local demands of the immediate territory.

On the east side of the Southern Sierras there are a number of good power sites, some of which are already developed by the Southern Sierras Power Company for transmission to Southern California and to the Imperial Valley and Yuma, making probably the longest transmission in existence today.

#### DEVELOPMENT OF TRANSMISSION LINES

On the topographic map of California we have drawn the main transmission lines as built and showing the contemplated lines, and which also show the natural development of future lines.

Because of the larger power possibilities of the north we see the natural trend of the power lines in the Southern Sierras and from the Cascades is from the north to the south. The power from the Southern Sierras should ultimately go to Southern California at 220,000 volts. The power from the Northern Sierras can go to the San Francisco Bay market at 110,000, or a higher voltage if desired, but, as the lines must be more or less radial from the south end of the bay to the power sources, and because the power sources are widely separated, and further, because of the fogs near the San

Francisco Bay, it may prove best to operate these lines at about 110,000 volts. The power from the Cascades should come to the bay at 150,000 to 220,000 volts and from the Pit, because of the large block of power to be transmitted, 220,000 seems preferable. A double circuit tower line shows economy over a single circuit line.

The power from the Northern Sierras for Central California will no doubt be distributed over a primary system of about 110,000 volts and the Sacramento Valley and San Joaquin Valley transmission will no doubt also be for this voltage, and, of course, a connection for this voltage between the Northern Sierra and the Southern Sierra power. But, as the 220,000 volt line from the Pit and other Cascade streams should end on San Francisco Bay and the 220,000 volt line from the Southern Sierras to Los Angeles should begin at the San Joaquin River plants, I cannot see any reason for connecting these two north and south high voltage systems at 220,000 volts. This inter-connection should, it seems to me, be made at 110,000 volts.

We see, therefore, that the future development of transmission systems will follow largely the general lines of the past developments and the plans now in contemplation.

As the power and transmission capacities increase, consideration must be given to the problems which come from having so much energy available which can be released in a short period of time. This requires careful engineering study.

#### CO-OPERATION OF IRRIGATION AND POWER INTERESTS FOR STORAGE

Power plants require practically a continuous supply of water throughout the year, while requirements for irrigation are greater in the spring and summer than in the fall. The spring and summer seasons' demands for the two industries can be met without any appreciable divergence of interests. The storage re-



View on the Pit River, where important hydro-electric developments are in process of construction by "Pacific Service."

quired for the operation of power plants during the fall and to the beginning of the next season's stream flow from precipitation, must come from storage that is controlled practically for power purposes only. There can, however, generally be co-operation in the mountain storage the remainder of the year because the excess run-off in the early spring months is usually enough to supply the needs of irrigation and fill the mountain reservoirs besides.

#### TYPES OF DAM

Four types of dams have been largely developed in California: (1) The rock-fill, with timber or concrete face; (2) the hydraulic fill; (3) the multiple arch and (4) the constant angle arch types, and these, together with the ordinary gravity type, are found on various developments in the West. The constant

angle arch for high dams in V-shaped canyons and the multiple arch for dams up to about 150 feet for U-shaped canyons are logical and are now generally used in California.

#### REGULATION OF TRANSMISSION LINES

On San Francisco Bay there will be a synchronous condenser station, also steam reserve stations. The same is true of Los Angeles.

The regulating diagram for a 200 mile, 220,000 volt, 300,000 K. W. transmission system is shown in Fig. 2. For transmission at 220,000 volts a conductor of about 0.95 inches in diameter is required to prevent corona, which means a circular-mil area of about 700,000. If we allow some corona loss this size can be reduced perhaps to 500,000 C.M. For copper this means a capacity of a single

circuit of about 150,000 to 200,000 K. W. For aluminum or aluminum-steel this capacity can be reduced.

The power loss at full load over the line (for which Fig. 2 shows the regulation with synchronous condensers) is 10 per cent, including step up and step down transformer losses, as transformers are considered part of the transmission line. The regulation as shown can be practically perfect from no load to pull load. The synchronous condenser capacity required to do this from no load to about three-quarters load is about one-fourth the K. V. A. capacity on the generating end, and for three-quarters to full head an equal amount of synchronous condenser capacity will be required.

The regulating diagram shows the large increase of generator voltage, hence the increase of generator capacity that would be required if no synchronous condensers were used. By placing the regulating capacity largely at the receiver end of the transmission line we reduce the generator capacity and also reduce the extreme fluctuations of voltage that would occur when large loads are suddenly taken off the line. The synchronous condensers, therefore, not only improve regulation but prevent largely the over-voltage stresses on transformers, insulators, etc.

#### ECONOMIC FUNCTION OF WATER POWER

The primary dependable water power of the Cascades is equivalent to about 20,000,000 barrels of oil per year, that of the Northern Sierras to about 15,000,000 barrels and about a like equivalent for the Southern Sierras, or 15,000,000 barrels, giving a total of about 50,000,000 barrels per year, if the oil were used in good steam plants.

This is about one-half the present production of oil, of about 100,000,000 barrels, in California. Of this total about 10,000,000 barrels of oil per year could now be saved by substituting for the oil used by the public utilities for power and

for the oil used over the three main mountain railway divisions. This would be a material help in the oil situation. Much more oil could be saved by electrifying main trunk lines carrying heavy traffic.

Also this oil, refined and sold largely outside the State, would bring that much more money into the State that otherwise would not be available. We should use the water power as a substitute and sell the oil, of course. From this standpoint the oil companies themselves should encourage and help the water power developments for the best interests of the State. Some of them are advocating water power.

The development of water power must *precede* the industrial development of the State and, therefore, all those interested in the State's development should encourage the development of water power as rapidly as the growth demands. If power is not available when required the development of industries must lag.

The water power now developed is only about 20 per cent of the possible development in California, considering only the better primary power sites, as herein outlined.

#### PAST AND FUTURE OF POWER INDUSTRY

The development of what may be called the *power industry* began *first* some 25 years ago with the installation of water power units of a few hundred to a few thousand horsepower (the first plant being installed in San Antonio Creek in California) for transmission at about 10,000 to 11,000 volts to nearby communities; then followed the *second* stage of development, where units of 2,000 to 10,000 horsepower were installed and larger amounts of power were transmitted 50 to 150 miles at voltage about 50,000 to 60,000; and then followed the *third* stage, now about at its maximum, when still larger amount of power using units of 10,000 to 40,000 horsepower and at about 100,000 to 150,000 volts and for



transmission distances of 100 to 250 miles, and now we are approaching the *fourth* stage, when units of 20,000 to 100,000 horsepower are planned to be used for transmission at about 220,000 volts over distances of 200 to 300 miles or more if necessary.

The second stage I consider by far the most difficult period as not only was it necessary to develop the power units and the transformer units, but the entire insulator business for power transmission purposes had to be developed. During this period we had the development of the pin type of insulator for voltages up to about 60,000. The difficulties of the third step, due to the experience and resourcefulness of the engineers, were more easily solved than those of the second step.

To make practical the transmission of power at 220,000 volts requires that the insulator designers and manufacturers study the conditions and attack the problem with a full knowledge of the requirements. The present disc insulator has been a good step forward, but some improvement is required to insulate the lines for 220,000 volts to make the line as reliable as the remainder of the system.

It is difficult to give credit to even a few of those who contributed to the success of this period, but I may mention especially the Allis-Chalmers Company, whose engineer, Mr. Arnold Pfau, was the only man who was willing, fifteen years ago, to undertake the building of a turbine unit for 10,000 horsepower at 570-foot head, which unit was installed in the Centerville plant of the Pacific Gas and Electric Company in 1906, and is still in successful operation daily. Units are now being built for 800-foot head and units of 75,000 horsepower for 900-foot head are being considered.

I may also mention the work of Hewlett in the development of the suspension type of insulator, which enabled the raise in voltage from 50,000 to 150,000. The work of the General Electric and

Westinghouse Companies in the development of large generators for water wheel drive, and also the steam turbine development of these two companies, deserves great credit, as also their work in the development of transformers. The work of William A. Doble and the Pelton Water Wheel Company in the development of tangential units also deserves great credit.

The supremacy of the U. S. A. today in the power industry is largely due to the results of such outstanding work, of enormous value to the country. To fully appreciate the work of the United States manufacturers one must really see and compare their work with that of foreign companies.

#### EFFECT OF WATER POWER ON PROGRESS

With the present solution of the transmission problems we are entering the fourth and largest period of power development and transmission. The great importance of this step comes from the fact that power can be transmitted economically over distances of 200 to 300 miles (or more if necessary) and thus takes the power from the waste fuel of coal mines and from distant water powers to large industrial centers.

I have on occasions compared the large electric system to a bank in its economic function, and the electric medium of transmission may be compared to money, the medium of property exchange. If we had no money we would have to trade by direct exchange of property, and if we had money, but no banks in which to deposit our funds, from which those of us who need it might draw, the difficulties of doing business may be imagined. Without a central power distributing system each consumer must develop his own power and have some surplus power. Hence there is no medium of exchange, no means of "banking" the total power of all on the transmission system, and no drawing at such points and in such amounts as may be needed from time to time. Electric transmission provides the

elastic medium for exchanging any one form of mechanical power to any other form of mechanical power at some point on the system. The inter-connection of power companies has somewhat the effect of the regional reserve bank on the member banks.

I have at various times in the past made predictions of the progress of power development and transmission, all of which have fallen short of the actual attainment, and I believe that any predictions made today will fall short of the actual future attainments, because the forces driving the industry to solve any new problems are so large that no one man, ordinarily conservative, can see the effects of the results of the large number of exceptionally able men who are working to solve the problems presented. And I believe the electric and hydraulic industry has today the largest number of high-class technical men working on these problems that have been brought to bear on any industry in the past. It is certainly a great privilege to have lived and worked with these men and to have been a small part of this tremendous development.

The greatness of the results comes from the fact that the power results obtained multiply the capacities of the nation, the communities and the individual, so that larger results are accomplished with less labor. That is, this industry does not transfer a burden from one set of shoulders to another, but actually relieves the burden and multiplies the capacity of the individual.

I believe it was Professor Oswald who said: "Happiness requires the greatest possible amount of completely transformable energy." He had probably in mind only human energy, but we may really remove the restriction and the statement still stands true. And of all forms of energy that of water power which is annually replenished is, of course, the most valuable. By burning wood, coal or oil

we are really *reducing the nation's assets*, but by developing water power we actually *increase the nation's assets*. This will gradually become more and more recognized, and the real era of water power development now beginning will, if not strangled politically, make the next twenty years the most important in the ultimate stability of the country. For, to be stable, we must use water power and to be efficient we must make greater use of electric power transmission.

In considering and planning the larger power development and transmission systems of the future we must recognize the differences in this business from that of the railroads. The railroads carry traffic both ways, the transmission lines will carry business generally only one way. A railroad may build one trunk line through a region and all traffic must come to it; the transmission lines must deliver the power to each consumer. Hence, the power lines will require quite a different transmission system from that of the railroads. The important points of the main high voltage transmission system being, of course, the power source, and the center of the load.

Certain suggestions that are made for large trunk lines have a popular sound, and there is always danger in these popular ideas. Some great man has said that "all popular things (ideas) are wrong," the reasoning being that a large number of people will follow any popular idea that is sufficiently advocated. Hence a large number of people who don't think about the matter at all will plunge into and "fall for" any popular propaganda.

The large systems will largely grow out from the present systems as a natural economic development and certain small companies must ultimately be eliminated, but the change should be gradual and natural.

I cannot see any step in the development of the power and transmission business that cannot better be solved by private interests than by political methods.

If the present privately owned public utilities cannot or do not meet the needs of the growth of the industry, then circumstances will no doubt bring about some other solution. The responsibility, therefore, on those at present directing the policies of power companies is very great.

The power companies should study their possible future requirements and, also, the possible and logical power developments that should be made to meet the demands of the future. A comprehensive study of the power resources in a given territory is a matter that does not involve very large sums of money; but there is too general a tendency for the power companies to neglect to make the study of a logical constructive program. The result is that the companies generally wait until they are forced "to do something" in a hurry, which often results in a merely temporary solution of the power problem and only defers the time when the matter must be attacked fundamentally and a plan worked out to be followed far ahead of the needs. Without a constructive program the companies are merely drifting in an unknown sea, which may lead to serious losses, and certainly "does not get anywhere."

The lack of water power legislation in the past has been a handicap, and the recently enacted legislation, while offering some relief, is too cumbersome. What the public wants is *development, service and regulation of rates*, and a law providing for regulation of service and rates, which need not cover more than can be put on one sheet of paper, is what the interests of the public require.

During the period of growth in the next few years the commissions should be especially liberal in the earnings allowed the companies in order to promote development. During the development period of any business greater earnings are required to give the impetus required to attract the money for development. An allowable earning of 10 per cent to encourage the development of water power, instead of steam power, would, I believe, give the impetus desired and required at this time.

The problem, because of its magnitude for the next five or ten years, requires the co-operation of all the big interests primarily affected. That is, the power companies in the development of water power should have the active co-operation of the oil companies, and the railroads should co-operate by electrifying the mountain sections of their lines on which most of the oil is used. These three big interests, the power companies, the oil companies and the railroads, should be able to solve the problem if they have the co-operation of the Railroad Commission and the co-operation and backing of the general public.

To *hold* the confidence of the public the power companies must, of course, do their work efficiently.

The railroads of the country are a great industry which affects the entire country; the power systems are also becoming a great industry which affects the efficiency of the country. It is, of course, essential that these two public utility basic industries be conducted by competent men who have a high appreciation of their responsibility.



# *Water Power Law Enactment Conceded to Inaugurate New Era of Development in West*

[From the San Francisco Chronicle, issue of June 24th.]

Vital importance of the water-power development bill, which finally has become law after ten years of avoidable delay that has forced exhaustion of oil and coal fields throughout the country, is given ready recognition in the West, where necessary conservation of fuel long has been uppermost in the thoughts of the people. It is generally conceded that this bit of constructive legislation opens the way to development of the inexhaustive sources of hydro-electric power, the one possible conservator of coal and oil which the Nation possesses.

Provisions of the newly enacted law mark the culmination of the work of years. Water-power development is a subject which has been widely discussed in every conceivable light, and according to power company officials in San Francisco and elsewhere over the United States is of first importance. It is pointed out that there exists an imperative need of conserving coal and oil and, with the already great and increasing demand for power for manufacturing and transportation, with importance to national preparedness, it is difficult to conceive legislation of more vital import to the whole people.

#### GIVES CERTAINTY OF TENURE

Robbed of its technical verbiage, the new law governing occupancy of public lands, substitutes for the former revocable license a certainty of tenure which fully protects the rights of the public at large and at the same time offers ample inducement for private enterprise, and guarantees to the licensee a fair remuneration in event the power projects are taken over for national, State or municipal purposes. Of especial interest to the public is specific recognition of the rights of states having regulatory commissions to control and regulate all rates, charges and tolls of companies operating plants within the public domain.

Literally hundreds of millions of dollars, according to local financiers, for

years have been waiting the enactment of an equitable law such as this. The building of plants that would furnish power for all sorts of useful activities, and that obviously would go far toward eliminating constantly increasing high prices for light, heat and power, has been retarded, it is asserted, through failure of Congress heretofore to enact such a law.

Commenting on the probable effect of enactment of the water-power law, John A. Britton, general manager of the Pacific Gas and Electric Company, voiced his approval of its provisions and asserted that it would be far-reaching and beneficial. He said:

"I regard final adoption of the bill as a complete triumph of conservatism over the Pinchot idea of conservation. Never in the history of our Nation has one idea retarded its progress to a greater extent than has the hysterical utterances of the antagonist to the development of the one resource that would have hastened progress of the public land States; that is, our water power. Pandering to popular thought that granting privileges for exploitation of the public domain would be to create a monopoly, Congress for more than ten years has delayed the building of power plants, forced exhaustion of oil and coal fields and permitted or forced the public to pay higher prices for light, heat and power.

"Bill H. R. 3184, through its adoption and enactment into law has unlocked the door too long closed, and it is to be anticipated that under its provisions newer and larger developments will be made, industries innumerable advantaging with cheaper power will seek the West, railroads now utilizing those natural resources which are exhaustible will be enabled to use that resource which is inexhaustible, and in the wake of this awakening will follow the corollary of peoples eager to take advantage of cheaper production and transportation,

and the West will come into its own, for which it has waited over two decades."

#### METHODS SIMPLIFIED

By placing the power of entry into public lands and navigable streams in the hands of a commission, the law, according to Mr. Britton, removes many embarrassments of present necessities of appealing to several departments, such as the War Department, when developments on navigable streams are desired, and the Interior and Agriculture Departments when forest reserves and other Government properties were involved, and where the rules of each department were not in entire consonance.

"The act fully protects the rights of municipalities desiring to avail themselves of water power possibilities," said Mr. Britton, "and protects the public against combinations in restraint of trade. It likewise protects the companies against unreasonable charges for rental of Government lands, and, at the end of the period for which the license is granted, guarantees fair remuneration for the property erected on or in connection with Government property, in the event the property is taken over for national, State or municipal purposes or by a new license, and also protects the investor in the event that only a portion of his plant

is taken, by an allowance for severance damages."

#### WILL INVITE CAPITAL

In pointing out the advantages of the new law over former provisions, Mr. Britton called attention to the fact that surrender of present permits, granted under previous acts and the rules and regulations of the several departments, is permitted in conjunction with the taking out of permits under the present law.

"The law is not as liberal as it should be to provoke full heartedness in the development of water power," contended the manager of the Pacific Gas and Electric Company, "but it is nevertheless encouraging, and capital will not be as shy as it has been heretofore in aiding the power companies in erection of hydroelectric plants in this and other States. Under provisions of the present law there is reasonable certainty of protection of capital to be invested, and the development of that which has been a necessity in California for many years—ample power at a minimum cost.

"So it's good-bye to the conservation of a conversational type and welcome to the conservation that truly conserves. The real losers have been the public, the new gainers in assured prosperity. It's a long wire that carries no energy."

[From the *Oakland Tribune*, issue of July 9th.]

After many decades of divided authority, the United States Government has been authorized by the recently enacted water-power development law to combine the control of the water resources and put them under the administration of a single Federal commission. By the new law all water power and resources over which the Federal Government exercises control will be placed under the jurisdiction of the Water Power Commission, composed of the secretaries of the interior, war and agriculture.

This ought to mean, and it is expected to mean, avoidance of present duplication; that a common policy will be pursued and that the combined efforts of the three departments will be directed toward a constructive program for the development, utilization and preservation of the water-power resources. Certainly this is what the country desires. Congress has enacted a law making it easily possible and the departments charged with the responsibility of bringing about the de-

sired change will have no excuse for not meeting expectations.

Up to the present three departments—War, Agriculture and the Interior—have divided control over the water powers in each district. Water power on navigable rivers had to be administered by the War Department. Water sources and water power on the public lands have been under the control of the Department of the Interior, and subject to the national homestead or mining laws. The policy of the Department of the Interior has been to prevent water-power development, or development of any other natural resources, and during the last fifteen years large tracts of land have been withdrawn from public entry in order to prevent exploitation of the natural power resources.

Plainly it is of the utmost importance that a workable plan be formulated for the administration of the new water-power law, one that will attract private capital instead of discouraging and repelling it.

# The Financial Side of "Pacific Service"

## RELATIVE PRICES OF GAS COMPARED WITH OTHER COMMODITIES.

In an issue of the *Monthly Labor Review*, published by the United States Department of Labor, which has just come to hand, there appears the following tabulation showing the average prices for manufactured gas in forty-three large cities of the United States during the seven years from April, 1913, to April, 1920:

Average\* and relative prices of manufactured gas for household use, per 1,000 cubic feet, on April 15th of each year, 1913 to 1920, for 43 cities combined. (Average price in April, 1913—100)

Year	Average Price	Relative Price	Year	Average Price	Relative Price
April, 1913.....	\$0.95	100	April, 1917.....	\$0.92	97
April, 1914.....	.94	99	April, 1918.....	.95	100
April, 1915.....	.94	99	April, 1919.....	1.03	108
April, 1916.....	.93	98	April, 1920.....	1.09	115

\*Net Price.

It will be observed that the average price of manufactured gas has only risen 15 per cent in the past seven years. The *Labor Review* also publishes a tabulation of the index numbers of wholesale prices of various commodities in common use indicating that in this seven-year period the average price of these commodities has risen no less than 165 per cent, the figure for April, 1920, representing an advance of 4¼ per cent over the preceding month and of 32 per cent over April, 1919.

## SALES OF FIRST PREFERRED 6 PER CENT STOCK TO EMPLOYEES.

At the close of last month it was decided to offer the company's first preferred 6 per cent stock at \$80 per share and accrued dividends, yielding to the investor a return of 7½ per cent. In order still further to accommodate those within our organization desiring to subscribe for the stock, arrangements have now been made whereby monthly payments of \$5 per share may be made by employees, these installments being deducted from the payroll in a manner similar to that in which employees' Liberty Loan subscriptions were handled during the war period.

While but a very few days have elapsed since the first announcement of this plan, it is already evident that employees are awake to the opportunity thus presented of acquiring a high-grade investment stock at an unusually low figure and upon terms which are calculated to impose no hardship upon those who avail themselves of the offer. Figures as to the subscriptions received are not yet available, but we hope in the next issue of this magazine to give a tabulation of the results of this offering.

## EFFECTS OF THE CUSTOMER-OWNERSHIP PLAN.

At the recent convention of the National Electric Light Association at Pasadena a report was presented by the Committee on Sale of Company Securities to Customers and Resident Citizens, in the appendix of which the following appears:

"The customer-ownership plan must be credited, appropriately enough, to the proverbial initiative of California. It was first started as a practical venture, so far as the committee knows, by the Pacific Gas and Electric Company, which has sold some \$8,395,000 first preferred 6 per cent stock to its customers and has added since June, 1914, more than 6000 new preferred stockholders to a previous list of 1200. This company has a splendid record of having sold \$3,785,100 worth of stock during 1915, the year of depression following the outbreak of the world war."

With respect to the stimulating effect upon the employees of a utility corporation who participate in sales of the company's stock, the report says:

"Next to the financial aspect of the plan, the immediate effect upon the employees of the utilities is of the most importance, especially in the latest development of the plan where companies use their entire force to sell their securities to the public. Just as you can line up iron filings with the application of a magnet, so your employees seem to fall in with the purpose of the management as a result of this common endeavor. Things about their company that had always baffled them, the balance sheet, the boss's aloofness, the long-nursed grudge, seem to straighten out. They begin to learn about their company's affairs. They find that gross income is not net profit (here we are speaking of the rank and file), that the boss is the same kind of man they are, and soon the grudge they nursed has suddenly spent itself for want of ammunition. \* \* \*

"Through the medium of a big single purpose having as its object the welfare of all connected with the company, comes a breaking down of departmental jealousies and a spirit of mutual confidence. We venture to say that democracy has first dawned in many companies with the advent of this plan. In short, all of the employees, from the officers down, get the company point of view and from that time are transformed from apathetic to useful representatives of the company."

The benefits to be derived from selling securities direct to the public are discussed as follows:

"Beneficial as are the immediate direct results of the customer-ownership plan, the indirect lasting results are still better. First of all, the customer-ownership plan, of course, brings a new relation between the utility and the public it serves. After the utility has placed its securities broadcast among its customers it faces a fairer public opinion. People who heretofore did not care whether the company prospered or not, or perhaps would rather not see it prosper if their bills might thereby be lowered, once they have become stockholders in the company will become interested, whether consciously or unconsciously, in its welfare, and what is true of the individual is true of the community as a whole. Moreover the company in inviting large sections of the community to become owners in its business accepts a new responsibility for giving service. As a result of the corrective influence that a stockholder's standing carries, every individual connected with the company has a heightened sense of duty when coming in contact with the public. If the company has been the object of attack and suspicion it will find that a fuller appreciation of its problems will almost invariably result. In place of its knockers it will have its defenders. If it already enjoys the good will of the public its position will be the more intrenched. This new order of things has been particularly valuable to companies which are not owned in their own locality. All over the country the new attitude toward utilities, as a result of the customer-ownership policy, is evidenced in a thousand different ways: in the reduction of complaints, in the lessening of unscrupulous attacks, in assistance given toward securing rights of way, in co-operative endeavor to adjust rates fairly, and in numerous little helpful ways."

#### RATE INCREASES.

Recent decisions of the State Railroad Commission granting to this company increased rates in both gas and electric departments are discussed elsewhere in this issue. These increases are, of course, very acceptable, and were necessitated by the great advances in operating expenses during the two years which have elapsed since the last general increase was granted, taking cognizance as well of the ten million dollars of new capital invested during that interval in additions and improvements to the company's properties.

But to our mind a source of still greater satisfaction is the unqualified recognition by the regulatory body of the fundamental principle that the prosperity of any community depends, in the most literal sense of the word, upon the prosperity of the utilities serving that community. A public utility which is unable to attract sufficient capital upon reasonable terms to provide, not only for the present requirements of the industrial, agricultural and domestic life

of the territory in which it operates, but also for the future expansion of business which is to be anticipated in a rapidly developing State such as ours, is in no position to fulfil its obligations to the public; and the only way in which the confidence of the investing public can be maintained is by the granting of rates which assure a reasonable and continued return upon the capital invested. In this connection the remarks of Hon. E. O. Edgerton, president of the California State Railroad Commission, at the recent convention of the National Electric Light Association at Pasadena, will be of interest to our readers. Mr. Edgerton said in part:

"I am one of those who believe that you cannot produce the best that is in men and women by punishment. You cannot whip a man into efficiency. In that belief I am convinced you must proceed by inducement; that every one of us in some degree, in order that he may do the best that is in him, requires that before his eyes there be some reward.

"Let us apply that to the fellow who has money to invest. I recognize that we cannot get money out here from the East into California by threat, by argument, by any form of punishment, by any suggestion that because of investment already made they cannot quit; I recognize that the money must come by inducement; and in my judgment it can be induced without paying exorbitant and unreasonable prices for it. We must bid for it, yes; but bid for it against speculative securities, against anything anybody is willing to offer—bid for it against the man who offers a chance for large reward? No; I say not. I believe that we have assets in California which, if properly used, will produce the fundamentals of inducement to investors, this being absolute security of the investment itself, the assurance that the dollar will not become 90 cents or something less, coupled with certainty and regularity of return. And if we have these assets, why not make use of them, and then if money is available on any terms, we will get that money.

"Now, what are these assets? Power houses and transmission lines? Surely. But over and above that we have the assets of a great vital, essential service—a service which the people must have, a service which they cannot get along without. And that is an assurance to an investor that that asset cannot disappear. My judgment is, gentlemen, that the public utility financiers and the Railroad Commission have these assets in trust for the people—I think they can make bitter complaint if we do not use them, coupled with others, so as to produce the necessary money to do the absolutely essential development that must go forward in this State.

"If it is necessary now to persuade investment, to insure regularity and certainty of return, why not face that fact? Why continue to indulge in discussions of technical methods of valuation never settled? Eight years' experience now in the Railroad Commission, with constant discussion of the methods of valuation and proper rate bases and reading of the decisions of courts, puts me in a position to say to you gentlemen that those questions are no more certainly settled today than they were eight years ago. Now, why not face that as a fact, and why not seek some other method of determining the rate of return the company should get? To face the situation clearly and conscientiously, what methods now shall we pursue?

"My judgment is that the thing to do is to start with sound capitalization; and thereafter fix rates based on getting the necessary bond interest, dividends, and fixed charges to support that capitalization, and then, to meet the contention of the investor that perhaps later a different policy may be adopted, set up a cash reserve out of rates, to be rigidly held, for the purpose of insuring bond interest and dividends, so that when you take your securities to the money markets of the country, the investor can be shown an actual cash reserve as an insurance policy for his bond interest and dividends. I realize that this suggestion means almost a complete reversal of the attitude of regulating bodies. But why not? If it is the sound thing to do, why not reverse the attitude?"





Fourth annual dinner of Pacific Service Employees' Association, held at

At this successful affair the board of directors was unusually well represented. At the speakers' table in the center under the American flag is seen Mr. R. E. Fisher, chairman of our Employees' Association, having at his right hand President Edger-

ton of the California State Railroad Commission. Next to Mr. Edgerton on the right is seen Mr. F. G. Drum, president of "Pacific Service," and next to him Mr. John A. Britton. Among other directors at the speakers' table are seen Messrs. F.



Hotel, San Francisco, on the evening of Thursday, June 17th.

B. Anderson, John S. Drum, D. H. Foote, A. F. Hockenbeamer, Norman B. Livermore, John D. McKee and C. O. G. Miller. It will be noticed, also, that the speakers' table is graced by several members of the fair sex, prominent among whom are seen

Mrs. John D. McKee, wife of Director McKee, and Miss Bertha Dale and Miss Pearl Sturm, members of the Women's Affairs Committee of our Pacific Service Employees' Association. There were 900 men and women present at this affair.

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - - EDITOR-IN-CHIEF  
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*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII JULY, 1920 No. 2

### EDITORIAL

Readers of PACIFIC SERVICE MAGAZINE have by this time been made aware that the California State Railroad Commission has authorized our company to increase its rates for both electric and gas service.

Separate decisions were handed down by the commission after exhaustive hearings in which all parties interested on both sides of the argument were given their days in court.

The electric decision was handed down July 1st. It authorizes the addition of a 15 per cent emergency surcharge to all bills rendered, beginning with July 10th, this year, and ending with April 10, 1921, a period of nine months. This surcharge is allowed upon the standard rates for electric service previously fixed by the commission plus the surcharges that have been allowed upon previous applications.

The decision covers all territory served by the Pacific Gas and Electric Company, including that acquired through its purchase of the Northern California Power Company's properties and, also, the properties of the San Francisco and Sierra Power Company, recently acquired under lease.

It has been estimated that the new emergency rate will give "Pacific Service" an additional revenue of \$2,200,000 for the year ending July 1, 1921.

Shortage of water power and the consequent necessity of generating a large quantity of electricity by steam, involving the use of fuel oil costing \$1.81 per barrel, and increases in all classes of labor and material are responsible for this emergency charge. The period of nine months for the collection of this has been set by the commission in the expectation that by next April sufficient new hydro-electric power will have been installed to considerably reduce the necessity of electric generation by steam process. The "Pacific Service" rate schedules have been altered by the commission to a certain extent for the object of removing inconsistencies. The alterations, in most cases, merely simplify the light and power schedules.

The commission's engineers estimate the "Pacific Service" output for the year 1920 at 1,430,000,000 kilowatt hours. Its estimate on purchased power is 110,000,000 kilowatt hours. In its estimate for power produced by steam electric process the commission gives the figure at 570,000,000 kilowatt hours. Its estimate of hydro-electric power to be produced during the year is given at 750,000,000 kilowatt hours.

The commission allows \$2,040,000 for maintenance, including wages increased as of April 1st last, and an allowance of \$3,150,000 for operating expenses for the twelve months. This includes an estimate of \$4,866,000 for fuel oil alone.

In discussing our company's case, Commissioner Devlin observes:

"The nature of the proceeding upon which the present order is based is such that the detailed analysis given to capital investment, operating expenses and other similar considerations such as would be made in the establishing of a rate base and permanent rate, cannot, by reason of the emergency character of this part of the proceedings be made and given. Such study and analysis will of necessity be postponed for the further hearing of this application and the order herein will be based on what are the obvious and immediate necessities of the situation appearing from the evidence introduced."

Recommending that a full allowance for maintenance be made, Commissioner Devlin orders our company to set aside \$170,000 a month for plant upkeep. In making this order the commissioner says:

"The company's property should be maintained in first-class condition. It would be false economy to reduce maintenance at this time. It would result only

in decreasing the quality of service in the future. But I believe it only fair that if the company for various reasons does not carry out the maintenance which it contemplates that the amount which it does not expend should be set aside to cover maintenance in the future."

The decision referred to our company's power development program, including estimates of cost of obtaining money, construction, etc. The following is from the commission's decision:

"Money invested during the last two years has cost considerably more than previously. Certain securities cost approximately 6 to 6½ per cent prior to the war. The financing during the past year and one-half has been at a rate of between 7 and 9 per cent and the money which has been borrowed by the Pacific Gas and Electric Company to carry on the development it is now commencing, according to the evidence, is costing it at the rate of 8.88 per cent. It is apparent that the former rate of return cannot apply to additions and betterments when the present money is costing it from 1 to 2 per cent in excess of the money previously obtained."

The decision in the gas case was handed down two weeks later. It adds from 5 to 15 cents per thousand cubic feet, according to locality and conditions of service, to the prevailing price of gas to the consumer, and taken in the aggregate gives an average increase of about 10 per cent above the prevailing schedule prices.

As in the case of the electric decision the new rates are in addition to the 10 per cent surcharge authorized in June, 1918, being designed to cover the increased costs of production during the past two years. As in the other case the California State Railroad Commission based its decision on the increase of fuel oil, labor and material incidental to the manufacture and distribution of the product.

In making this decision the commission allowed our company a net amount of \$3,238,586 for depreciation and return upon investment.

We are pleased to note the general tone of approval on the part of the public press of these two decisions of the rate-making body of California. There have been many editorial comments in which the public has been asked to realize the absolute necessity for its substantial support of the public utilities upon whose efficient operation the progress and development of this section of our western

country depends to a very vital extent. As an example we take pleasure in quoting from the editorial in the *Jewish Times* of San Francisco under date of July 9th:

"As was to be expected the Railroad Commission has allowed the Pacific Gas and Electric Company an increased charge of 15 per cent to the consumers of electric light and power and a similar increase may be reasonably expected very shortly by the users of gas.

"The Pacific Gas and Electric Company has never been arbitrary in its charges. The public has demanded an increase for the price of labor, but in doing so it failed to recognize the logical outcome which would be an increase to them of lighting and heating commodities. It is a common sense rule of economies that the cost of the supply follows the cost of production, and if the public demands an increased cost of production it must expect to pay the increased cost of supply. The investors in any public service corporation have a right to expect a reasonable return on their investments. If public conditions become such that they cannot get this, public service must either deteriorate or cease entirely. Neither condition is desirable. The average American wants the best that is going. Public service corporations as a rule endeavor to give it to them, and when the cost of production is increased the cost of the supply will naturally follow.

"The Pacific Gas and Electric Company were entitled to all they received at the hands of the commission. Consequently the public will pay the price, but in doing so it must remember it is receiving the best service at the hands of the company that it is possible to receive."

The San Francisco *Chronicle* observes: "These increases are necessary. We need the development of water for the creation of power, the irrigation of land and for industry and domestic use. We need from the public utilities the best service which can be given, and, within reason, the reliability and quality of service is paramount to the question of cost.

"We shall not get any of these things except by the very large and for many years the constant increase of capital investment. We shall not get this investment except by reasonable assurance to capital of reasonable return on that investment or by extorting it from the taxpayers, with the reasonable assurance that there will be no return."

## Tidings From Territorial Districts

### Alameda County District

Charlie Northcutt, the district manager at Modesto, proved himself quite a hero at the Pasadena convention, when one R. A. Gentis pounced upon Charlie in a rough and tumble wrestle. Charlie was taken unawares, but somehow Charlie in the drawn-out struggle succeeded in flooring Gentis—and then sitting on Gentis—just as Gentis intended sitting on him. After it was all over, Gentis said Charlie couldn't do it again, and perhaps Charlie couldn't; anyway he did. So the boys had immediate respect for Charlie; he was some pumpkins and was passed as a perfectly good fellow.

Charlie is a true Southern gentleman from good old Alabama; that's why he delights in sunny Modesto by the banks of the warm San Joaquin. So in that true Southern spirit he quietly planned to get even with Gentis. It was on the home trip. The party was divided up into two machines; one closely following the other. The roadbed was smooth as glass and for some thirty-five miles as straight as an arrow, not a swerve or curve, a straight line into the distance. Everyone was busy talking, all together, like a bee hive. Alongside the highway was a motorcycle with the driver dismounted repairing it. No one knew he was a speed cop, he was dressed in plain clothes: no one paid any attention. On such an elegant highway there was temptation to speed and the boys were probably crowding the limit. Anyway, after the second machine passed, the motor cop pursued and came up along side of the last machine. He kept apace for a while unheeded and then spurted up along side of the head machine, where Charlie was riding with Gentis at the wheel. The cop ordered them to stop forthwith. The second machine coming up took in the situation and passed on as strangers, leaving the cop and the bunch to wrangle. He accused them of going 50 miles an hour and Gentis disputed. The argument became heated and Charlie, realizing the majesty of the Law, got out the opposite side of the machine and passed

around to where the cop stood. Placing his hand on the cop's shoulder, he drew him aside in quiet conversation. The charm of Charlie's gentle ways, the touch of Southern dialect, was too much for the cop. He confessed he was only admonishing the boys. The cop then turned to the bunch and signaled to go ahead. How did Charlie do it? Anyway Charlie again became a hero.

At the first stop Charlie bit a long distance phone and called up his friend the Chief of Police at Modesto. Charlie described their machine, that he would have Gentis at the wheel and called upon his friend to have a cop at the town limits and to arrest the driver, Gentis, as a speeder.

It may be a shame, but just ask Gentis.

Bill Amborn is a member of the Harbor View Club. That is, he is supposed to be. At the big employees' dinner at the Palace, Bill showed up missing. He wasn't with the bunch. He said he got lost. He was lost—badly lost—with several young ladies 'way off in the main dining room when his bunch was supposed to be in the Rose Room. There Bill was—'way off alone, like an island, surrounded entirely by young ladies. And he wasn't a bit worried.

Will Beekman and Gus Lucks, as manager and assistant of the Bookkeeping Department, told all the young ladies and young matrons to assure their mamas and husbands, respectively, that they as department heads would be safe chaperones at the Big Dinner. The task was so momentous that a single young lady required the exclusive attention of each and, strange to say, each young lady happened to be in the premium type for looks.

A very pretty wedding took place recently in St. Leander's Church when Miss Aurora Veronica Garcia, of this city, became the bride of Mr. John Charles Jordan, of Oakland.

To the strains of Mendelssohn's Wedding March the bridal party entered the

church and took their places in the sanctuary where the ceremony was performed. Miss Mamie Loretto Garcia, sister of the bride, was bridesmaid; Mr. George Jordan, brother of the groom, was best man, and Pearl Cecelia Garcia, tiny sister of the bride, was the flower girl.

The bride was prettily attired in a creation of white georgette crepe and tulle veil which fell in graceful folds with a medium train. She carried a beautiful bouquet of white bridal roses. The bridesmaid wore a handsome gown of pink crepe de chine and a beautiful pink maline hat. Her bouquet was of pink roses. The little flower girl was daintily attired in pink organdie. During the ceremony Mrs. H. Green rendered beautiful vocal selections and Mrs. T. M. Grant presided at the organ. Messrs. Harold Williams of San Leandro and Harold Wright of Oakland were the ushers.

The bride is a daughter of Mrs. M. J. Garcia of Hyde Street, and is one of San Leandro's popular and charming young ladies. Mr. Jordan is also well and popularly known in the east bay cities and holds a responsible position with the Pacific Gas and Electric Company as advertising manager of the Alameda County district.

Following a reception to the immediate relatives, at the Garcia home, Mr. and Mrs. Jordan left on a honeymoon trip to Lake Tahoe. On their return they will reside on Sybil Avenue, this city, where Mr. Jordan has prepared a beautiful new home for his bride.

The employees of the Gas Works have organized a "He" athletic club, meetings to be held twice a month. The object of the organization is chiefly to promote good fellowship feeling among the boys and to stimulate their interest in plant activities not directly connected with their work. Boxing, wrestling, and stunt athletics will be the main issues, with entertainment of various kinds between the events to keep the interest of the members at its height during the evening. Club rooms have been fitted up at the Gas Works. The first meeting was held June 17 and the following officers were elected:

Arthur Lyons, president; K. B. Naismith, secretary; Harold Mann, treasurer; William Kitto, property man.

Entertainment Committee: Harry Day, chairman; Harry Vote and Joe Ducco.

Rules and Regulations Committee: F. Figeroid and H. Fledderman.

Invitation Committee: Don English and Andrew Perry.

The club is yet unnamed. They have offered a prize for the best name to be submitted at next meeting.

The evening closed by staging several good boxing matches.

The Gas Works wish to call attention to the further success of the P. G. & E. "Oaks" of Alameda County.

The Walton N. Moore team of San Francisco was shut out, 4 to 0, Figeroid pitching a no-run no-hit game. The only man reaching first base got there on a walk and died on the bag.

The Atlas Gas Engine team was swamped, 17 to 5, and the Oakland Defenders Club, Negro Giants, were given a merry time chasing the balls. The score was 15 to 6 with four home runs figuring. The feature of the game was the hitting of "Skinny" Godbier, crack third baseman, who connected four times out of five trips to the plate.

H. M. Anderson, the star shortstop, has been after the ball with a vengeance, more so now than ever. Andy just returned from his vacation and incidentally his honeymoon. We wish him many happy years of marital bliss.

Crowds of downtown shoppers were thrown into a near riot in Oakland when a pickpocket fleeing from a pursuing mob drew fire from Patrolman Tom Pardee's revolver and threatened in turn to use his own gun in the midst of a crowd when cornered.

Joe Perry, Station C, Oakland, boarded a San Pablo street car on his way into Oakland and a few moments later as he stood in the rear end of the car he discovered that a man standing near him had just picked his pocket of a wallet containing over \$50 in currency. He grabbed at the man, who jumped from the car and ran, Perry pursuing.

The chase lasted for several blocks, and when Perry began to close in on the thief, the fellow pulled a revolver from his pocket. Perry threw his weight against the man and grabbed the pocket book. The pickpocket, temporarily released from Perry's grasp, started down the street again, carrying his gun in his hand and threatening to shoot Perry if

he pursued. Several pedestrians joined in the chase.

Patrolman Tom Pardee joined in the chase. He swung onto a passing automobile and succeeded in getting in front of the pickpocket, who was then between the officer and the crowd. Again he threatened to use his revolver. Pardee fired five shots over his head and the man surrendered.

L. M. Eldredge, collector, Berkeley, met with an unfortunate accident on June 1 that has put him on the disabled list. While riding a motorcycle on his way to the Oakland garage he struck an automobile, suffering a fractured skull. We are glad to know that he is now on the mend.

Construction work has been completed at the Wildcat shaft and East portal of the East Bay Water Company's dam in San Pablo Valley, north of Berkeley.

The filtering plant at the West Portal is completed and the water is now being distributed from the lake.

Twenty-two hundred horsepower was installed during the construction period.

Summer school at the University of California opened up with an enrollment of 3900; this with the inter-session enrollment of 1200 makes the total around 5000.

Already the scramble for housing by those already here and the thousands coming for the next semester has commenced and the prospects are bright for a grand rush in the company's office, ordering service.

Miss Flora French, of the Bookkeeping Department, was married July 2 at the home of her parents, to Mr. Milton Dearmin.

Mr. Dearmin is connected with the Government auto service. If Mrs. Dearmin is as good at housekeeping as she was at bookkeeping, Milton is a lucky boy.

When Miss Christianson left the office, two weeks ago Saturday, she was still Miss Christianson. On her return Monday A. M. she was Mrs. Lieze. Some change in two days, from one Miss to Mrs.

If all the young folks in the Oakland office, who have been, who are going to be, and who want to be married this year, were placed a foot apart, they would

make a line from the new City Hall to a point six feet the other side of Berkeley. The Bookkeeping Department is going to purchase a bouquet of wax orange blossoms to have them on hand for any emergency. Thus soliloquized the head of the department. But why six feet the other side of the Berkeley line? Six feet sounds like burial space and why consign all this to Berkeley?

Yes siree, three of the girls from the Oakland Accounting Department walked to the familiar wedding march from "Lohengrin," "I Will," during the month of June.

No, payrolls and reports are not going to be late, for two of the young ladies are still with us. So if you wish any information about G. M.'s be sure to call Mrs. Leggett instead of Miss McDonald and Mrs. Spring will answer all the questions you were in the habit of asking Miss Corduro. We cannot decide whether it is a feather in P. G. & E.'s cap or attribute it to the superior ability of the girls when they are able to attend business and keep hubby in a good humor at the same time. On the other hand, Mrs. Berquest, formerly Miss Johnson, seems to prefer darning socks and polishing silverware to taking off distributions. So guess we will have to divide the laurels between home-making and office routine.

"Marry when June roses blow,  
Over land and sea you'll go."

However be they near us or far away we all wish them much happiness and prosperity.

Overheard in Accounting Department during a rush hour: Mr. Leonhard was helping some one find half an hour missing time on a labor sheet and four other girls asking him questions all at the same time.

"Good heavens, there are too many girls after me!"

Now who would have believed it of Mr. L.? Some truth in "Still water runs deep."

AL A. MEDA.

### Sacramento District

#### INFLUX OF NEW PEOPLE

The immigration of people to our beautiful city from all parts of the union still continues. Not a day passes but a citi-



zenry of a very superior class presents itself for our service and, above all things, when asked for credit conditions they say in seven cases out of ten "I am the owner, just bought the place and am going to stay." That kind of people make a successful city of loyal citizens.

We venture to predict that the true California hospitality extended by all parts of the State to the delegates of the recent National Convention will bear golden fruit. There is nothing heard but praise from all quarters and we feel that large numbers of our visitors are now considering a return to our Golden State and its famous hospitality to become part and parcel of our proud possessions of the Golden West. Come along, people! Do not be afraid of being crowded, for consider that Belgium with its 7,000,000 occupies an area which is practically co-extensive with Sacramento and Yolo Counties.

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#### GAS EXTENSION

Although little has been heard or said about it one of the most important gas extensions of our company is now under way. A force of 100 men with a big Austin ditcher with a daily capacity of from 1800 to 2000 feet of ditch of the required size, with trucks and cars of all kinds, is now on the job. The extension is from Sacramento by way of Broderick and Davis to Woodland, a high pressure gas line, an extension which will cost, exclusive of the local distribution systems in Broderick, Davis and Woodland, about \$200,000. The main line will be 159,000 feet in length of welded pipe the entire distance and will supply approximately over 200,000 cubic feet per day. The first stretch of pipe from the plant in Sacramento to carry across the Sacramento River is six inches in diameter; from West Sacramento to Davis is five inches, and from Davis to Woodland four and a quarter inches. There is about 60,000 feet of this pipe already on the ground and about 4000 feet of the ditch is already constructed. This system will be complete in every particular and the construction absolutely up to the minute and of as fine a class of work of this nature as is possible for modern gas engineering to devise. To us, who know the ability, efficiency and thoroughness of Mr. E. S. Jones, in charge, there is no thought but that it will be another link

in the great chain of success of "Pacific Service" effort.

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We are right in the midst of one of the most successful fruit and vegetable seasons ever known in this section. Our canneries are working to capacity and fabulous sums are being expended for material and labor. A standard price now used in contracting for peaches is \$110 per ton.

The future of all this country is firmly established on a basis of almost fabulous productivity. In fact, all of our wonderful State is depending only on two things for the making of an era such richness that the Lucullan feasts of olden days will be but as "Ribbers Well!" to a "Palace Hotel Banquet." These two things are expert testimony as to the proper crops for which the various soils are adapted and, then, above all things, "Water" and to the superlatively correct, this "Water" must be pumped with P. G. & E. Co.'s juice. All other brands are but imitations of the real thing.

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Thunder and lightning! These are not swear words but are words that should be sworn at. Never in the remembrance of "Ye Oldest Inhabitant" has this section of the State been visited with such an electric storm as we had during the first week of July. The thunder was fearful and the lightning did great damage to our entire system. It put Drum power-house and others out of commission. This class of storm is so rare here that it was a seven days wonder and also the general topic of conversation. It is supposed that this was but the echo of the "Thunders of Eloquence" evoked by the various delegates from the East who were attending the recent convention in San Francisco. We request them to have a heart and not uncork so much at one time as to be dangerous.

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#### IRRIGATION

The demand for power for pumping water is unprecedented, and instead of our crying "Blucher or Night," it is "Pit River or bust." Every indication is that no matter how large our development of power the demand will constantly exceed it. The past four years of comparative dry weather has put every thinking farmer of grain, rice, fruit and vegetable lands into but one groove of thought and that is "We cannot depend upon nature



for our necessary irrigation water. We must assist her with pumps and pumps and more pumps." This will remove the so-called "gamble" from the farming proposition and make assurance doubly sure.

It is really exasperating to cross the various rivers of our great valley, the Sacramento, the American, the Bear, the Yuba, the Feather, the Cosumnes, and see them carrying millions of gallons of priceless water to the sea. Water that should be held by restraining dams in the hundreds of canyons and ravines of the Sierra Nevada mountains until the time it is needed in the valley for irrigation and the production of power. If so properly restrained the entire country would be made to blossom like the rose and all the factories of these United States could be supplied with the power lying dormant on our mountain sides. These are subjects for thought that should bear profitable fruit. Let's hope.

G. B. BALDWIN.

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### Fresno District

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Fresno's building activities seem in no way abated by the advent of the "good old summer time." The Fresno Building Corporation, according to the *Republican*, intends to be financially equipped to take care of Fresno's phenomenal growth, and has increased its capital from \$100,000 to \$1,000,000. This concern has promoted many of the city's best subdivisions and is building many of the town's best homes.

The new Buddhist Temple, located at E and Kern Streets, is rapidly nearing completion. It will have the distinction of being the largest building of its kind on the Pacific Coast, and from the point of modern convenience and beauty of design will be a decided credit to the city of Fresno. The building proper is of reinforced concrete, three stories in height, and topped off with a tiled roof of a decided Japanese type of architecture. The heating of the entire building will be by Hawks gas-fired radiators.

The *Republican* reports the purchase by the Pacific Telephone & Telegraph Company of the corner of Van Ness and Stanislaus for a consideration of \$50,000.

A modern equipped operative and office building will be erected in the near future on this site.

Among the new enterprises which have recently thrown open their doors to the public is the Sunshine Bakery, located at 2020 Fresno Street. The operative department, equipped with two Meek reel gas-fired ovens, is conspicuously located in the sales room. The white tiled floor and counters add greatly to the spick and span appearance of the whole establishment. An average of 700 loaves a day are being turned out by these ovens. A portion of the window display is occupied by two gas-fired doughnut stoves. The cooking of these golden brown crullers adds greatly to the drawing power of the store.

The Jersey Farm Dairy sales room immediately adjoining the Sunshine Bakery has recently installed a McKee gas-fired boiler, which is to be used in sterilizing drinking glasses.

The Fresno County Chamber of Commerce has contracted with the Prince Construction Company for the erection of a \$250,000 speedway to be located at the Fair Grounds, which will be in every way an up-to-the-minute race course. The project is to be financed by the sale of tickets, each ticket to be good for a period of ten years, and to cost \$100.

Social activities of the "Pacific Service" family have been confined largely to swimming parties, which the summer weather makes thoroughly enjoyable.

Miss Rose Miller, who at one time was connected with the Fresno office, has been making a brief visit in our midst. Her latest field of activity has been in the Northern districts. She is taking a few months rest for her health.

E. W. K.

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### Placer District

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A canal washout on the Bear River which occurred June 9th sorely tried our men of the Placer district. We are proud to say, however, they were not found wanting.

The break, which required rush work, was repaired and service restored in a remarkably short time. Not only did our men work forgetful of self but, also, peo-

ple living in the vicinity of the break brought their teams for hauling lumber and worked the entire night and day following, all absorbed in the task to be accomplished. Every man was at his post, doing his utmost.

The repair work called for the construction of seven boxes of trestle flume, size 7x12 feet, requiring approximately 4000 feet of lumber for each box. On the lower half of the flume it was not possible to secure a suitable foundation due to the clay character of the ground. This, however, was overcome temporarily by "building up" four 12x12-inch stringers 45 feet in length and supporting same with an overhead truss. To accomplish this work in as short a time as possible so that service might be restored meant the concentration of the entire available organization, including help and transportation of same together with material and supplies and the feeding of the help, lodgings excepted.

The entire Placer district organization, including the office force, assembled and the work was on.

Fred W. Whitten, foreman on Bear River canal, who designs, organizes and executes in such an efficient way that these canal washouts are restored for service in the shortest time possible, had already started to reconstruct the damaged equipment. Jim Martin at once sent his truck loaded with an organized crew under Foreman Russell. E. J. Davis, superintendent of construction with headquarters at Newcastle, responded to the call with trucks, carpenter crews and other help, each set of men well organized and accompanied by their own working foreman. Trucks moved lumber, which was in stock, for a distance of four miles over the county road and unloaded it at the head of the canyon, at which point the lumber was again reloaded on to horse-drawn wagons and transported about a mile down the ravine to the break.

Mr. Lininger kept things moving in the district, the office force being in constant telephone communication directing the delivery of supplies, while Mr. Crabbe selected two men to serve food and hot coffee to the men on the job. During the early part of the work about 45 men were kept at work continuously. For the first 27 hours no one stopped work. When relief began to arrive, men who had been working incessantly for 27 to 36 hours quietly left the job, drank a cup of strong

coffee, crawled under a tree and went to sleep. Some slept undisturbed for a half hour, some for three or four hours, while others were sent home for complete rest. Some of the men who took temporary rest within 200 feet of the noisy work, without request from anyone, returned to the job, drilled on for a few more hours, then slipped away to take another short nap.

Our foremen were wonderful. The head carpenter, Mr. H. G. Chubb, had absolute control, and in carrying out the work no loud voice was ever heard. Each man was doing his part to the very best of his ability and strength. Men of this type I regard with the utmost respect and when placed in such a position and against such odds they have an opportunity of showing their metal, and I fail to know of one case where the men on this work did not prove themselves real men with absolute loyalty of purpose.

Mr. Curtis Dodge also proved to be an example of what a man will do in time of need. Dodge was located at the lumber yard five miles distant from the work, loading and checking out the lumber. By some oversight he was not provided with food, and after working all night and up until three o'clock the next afternoon, he called up the camp and stated that he wished something to eat. When it was learned how long he had been without food he was told to go home for food and rest, but this he refused to do for fear there would be a mix-up in the lumber deliveries. A suitable lunch was delivered to him and he stayed on the job.

H. S. Miller, a rancher at Bowman, near Halsey forebay, on hearing that there was a shortage of teams arrived with his two-horse outfit about dark and hauled lumber down the ravine during the entire night. Fred Haenny and Bill Cunningham, both ranchers, also came with their teams and did likewise, while Mr. P. McCollough, a neighbor, supplied his two-horse team. Adjoining property owners, Mr. Carpenter among others, herded their calves in order that their open pasture gates might be used.

Truckman Butts of Newcastle took the first load of lumber on his five-ton truck over the ravine road and to the job. Dave Hill, who at one time was a ditch-tender but is now second operator at Halsey; Bill Penman; Ed Lloyd; Jake Rasmussen; Camevisch; Collough of Drum district, all ditch tenders, were there. Ed Covey of Halsey, small in stature but large in stay-

ing qualities, was also there. Frank Mislley and H. A. Heiple were the cooks.

The Placer district pipe crew, with their foreman, Lester Ruth, Neal Holmes and George Knoff of the line crew, and Lyle Hamilton and George Smith with a three-quarter-ton White and a one-ton Ford, did day and night running, bringing men and supplies to the break. Walter Richardson, foreman at Halsey, was also on the job and, of course, Fred Whitten's repair men.

With the above organization the repair was made and service restored in quick time. Our appreciation of the men instrumental in the organization of the various crews is well understood, but to the men on the job all credit is due, and especially to the neighbors in the vicinity who did everything in their power to assist in the work.

H. M. COOPER.

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### Solano District

F. A. Starmer, our local agent at Suisun, has been placed in charge of the town fire engine. For a long time this apparatus has not worked satisfactorily and has been tinkered with by several mechanics without much success. Finally Mr. Starmer was asked to see what he could do with it as he has the reputation of being a wizard with things mechanical. He has put the machine in first-class working order and the town can be assured that it will continue in this shape.

C. E. SEDGWICK.

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### Redwood District

#### IN NEW QUARTERS

The Pacific Gas and Electric Company moved into its beautiful new quarters at 120 Broadway during the week. The building is well appointed throughout, nicely arranged and fitted in an artistic manner. The lobby is nicely tiled, as is the display room close by. The office of the manager, E. W. Florence, is at the entrance of the building and is attractively furnished and well arranged. The cashier's department is on the main floor, where the clerks and inspectors work. The bookkeeping and accounting departments occupy the mezzanine floor. It is nicely located. A large skylight admits a

flood of light to the whole structure, permitting all the lady clerks to enjoy God's beautiful and health-giving rays of the sun. There is a rest room and cafeteria for the employees and recreation grounds in the rear of the building. Venetian shades are to be installed on the windows. The structure is cozy and serviceable and will fill all the requirements of the company. Modern switchboards have been installed connecting the various branches of the district and main office in San Francisco. A large vault has been erected at one end of the building to accommodate all the papers and cash of the concern.

Gus Waller, the local contractor, erected the building and it is a credit to his skill and workmanship.—Redwood City *Times-Gazette*, June 26th.

[In the near future we hope to present our readers with an illustrated description of the new "Pacific Service" headquarters at Redwood.—EDITOR.]

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### Northern District

At the time the fire broke out in Willows on July 11th which destroyed a large portion of the town, I was at the Provident steam plant, but did not get the word until after six o'clock as all the telephone and telegraph communications were interrupted immediately after the fire started. I got to Willows about 6:30 and found it necessary to drive as far as Orland in order to get telephone communication for the purpose of bringing in help from the outside and instructing the dispatcher's office at Redding as to the situation and necessity for absolute uninterrupted service at Willows in case of any high line switches.

On arrival at Willows I found that the local force had the situation well in hand as regards all branches of the company service; they could not have done better had they been regularly put through a fire drill. Particular credit is due Ira Fender, foreman of the gas and water operations, for his handling of these branches of the company's service.

The fire started in the basement of Hoekheimer's store and the alarm was sounded at 3:35 p. m., at which time all pumps were started pumping full pressure directly into the city mains, and within ten minutes after the alarm all town circuits were killed and everything clear for fire fighting. The gas was shut off from the mains leading to the section

where the fire was located but service maintained throughout the balance of the town without interruption.

From Hockheimer's store the fire spread to the north completely destroying everything for one-half block and clear through to the alley west of Main Street. Also, across the alley everything was destroyed north to the City Hall with the exception of the garage on the southwest corner of the block. The fire also spread south to the Crawford Hotel building taking everything south for a distance of about 125 feet and west to the alley, but in this block it did not jump the alley. The fire was checked both north and south in the middle of the block.

The Willows fire department had two hose lines out from their engines as well as two lines from a hydrant and had 75

pounds pressure at the engine. When the engines from Red Bluff arrived they also ran out two additional lines and pressure at the engine was then maintained at 55 pounds. Our primary and secondary lead in the alley back of the City Hall and extending to the next block south were a total loss as were four transformers located in this alley. This, however, was cleared from the other circuit and the temporary emergency lead run in south from the burned area from the first alley west and electric service restored in the northern part of town at 8:20 p. m. and the balance at 8:50 p. m.

It gives me much pleasure to state that the situation was handled by the company's employees in line with the best traditions of "Pacific Service."

EDWARD WHALEY.

#### IN MEMORIAM.

FRANK H. SHORT.

With deep regret we note the passing of Judge Frank H. Short, a pioneer attorney of Fresno and one of our company's valued legal advisers, who died June 6th after a lingering illness.

Judge Short was 57 years old, born in Shelby County, Missouri, September 12, 1862. His father, Joshua Hamilton Bell Short, came of a family noted in the legal and literary history of the country. During his boyhood Short attended the public schools of Missouri and Nebraska, in which latter State he resided from 1872 to 1881, when he came to California. He had taught school in Nebraska and he continued this work in Fresno while, in the meantime, studying law. In 1882, when a young man, he was elected Justice of the Peace of Fresno County and the following year was admitted to the practice of the law.

He made a particular study of water law in the course of his practice in one of the great irrigation sections of the country. He was a staunch opponent of what is known as conversational conservation. He met former President Theodore Roosevelt and Gifford Pinchot in public debates on water conservation and showed a masterly knowledge of his subject. One of the best remembered occasions was when, in the year 1911, he met Theodore Roosevelt in public debate before the Commonwealth Club in San Francisco. Perhaps he did more than any other man in this section of the country to show the false arguments of the so-called conservationists to the light of true analysis.

Judge Short took a keen interest in political affairs and was a strong member of the Republican party. He was a delegate to the National Republican Conventions of 1896 and 1904. He took part in the work of the National Geographical Society and also of the National Civic Federation, and was a director of many important commercial enterprises and a member of many well known clubs. He was president of the California Bar Association for a term. He was a vice-president of the Taft League to Enforce Peace and contributed a well written treatise to the literature upon this much debated subject.

Judge Short is survived by his widow, Mrs. Nellie Curtis Short, and two children, a son and a daughter, to whom "Pacific Service" extends heartfelt sympathy.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

Our fourth annual Association dinner was held according to schedule time on the evening of Thursday, June 17th, at the Palace Hotel, San Francisco. To say that it was the most successful of all successful gatherings is but to record the constantly growing interest in our Association and its affairs on the part not only of its membership but of the entire "Pacific Service" organization as a whole.

To begin with, the responses to the call sent out were so generous that no less than 900 men and women were gathered at the tables. As many as possible were provided for in the ballroom, and there was an overflow banquet in the smaller room adjoining. Then, in addition to the rank and file of "Pacific Service," the occasion was remarkable for the unusual attendance of directors and officers and heads of departments and district managers. Those present included President Frank G. Drum, Vice-President and General Manager John A. Britton, Vice-President and Treasurer A. F. Hockenbeamer, Secretary D. H. Foote, Vice-President P. M. Downing, Assistant Treasurer Jos. C. Love, Assistant Secretary Chas. L. Barrett, and Directors Frank B. Anderson, John S. Drum, Norman B. Livermore, John D. McKee and C. O. G. Miller. It is worthy of mention that Mrs. John D. McKee accepted our invitation to accompany her husband to the dinner and occupied a place at the speakers' table. In addition to these, all of the heads of departments, save one, attended and the same record is in evidence concerning the district managers. In the case of each of the missing ones, the absence was unavoidable. So that, in every way possible, the occasion was a really representative "Pacific Service" turnout from top to bottom.

It is with pleasure that we record, also, the presence of two members of the California State Railroad Commission, President E. O. Edgerton and Commissioner H. W. Brundige. Chairman Fisher, who occupied the center place at the speakers' table, may well congratulate himself and his associates upon a fitting climax to an unusually successful ante-vacation season. As the roll-call by districts was held,

cheers greeted the spokesman of each section of our "Pacific Service" territory as he responded "present."

The banquet hall was tastefully decorated for the occasion and behind those who occupied the seats of honor there was draped a huge American flag. To add to the scenic effect all guests were provided with favors in the shape of colored head-gear, and when the toy balloons had been let loose from their hiding places near the ceiling, the spectacle was for all the world like a New Year's eve celebration. Every one was in the best of spirits and there was a general feeling of comradeship that made it all well worth while.

Of the menu it is enough to say that it was worthy of the occasion and was thoroughly enjoyed. There were some musical numbers during the feasting, including vocal selections by the Bohemian Club quartet and a young lady, Miss Leah Hopkins; a performance on the zither by Mr. Robt. Klier and an overture by our "Pacific Service" orchestra in which memories of our last Christmas show, "A Love o' Lights," were pleasantly recalled. Mr. Homer Kessling directed the orchestra.

When the time came for the speech making, Chairman Fisher reviewed the main events of the past season that had culminated in the assemblage before him. He referred humorously to the Democratic convention about to visit San Francisco and hoped the one would be as "pacific" as the other. Cheers greeted the chairman's announcement of a membership in the Association of approximately 1800, including men and women, and Mr. Fisher dwelt with emphasis upon the three outstanding achievements of the present administration, namely, the death benefit plan, the employee's loan fund and the unusual series of out-of-town gatherings.

Chairman Fisher's address was followed by a number of selections from "A Love o' Lights," in which Mr. Fred Myrtle's lyrics and Mr. Lowell Redfield's music were pleasingly rendered by Mr. Clarence Oliver in his old character of

"Monoxide Gas," Miss Eileen Piggott in her original character of "Miss Electra," and Mr. Harry Fossey in his clever portrayal of the "Chief Gloom."

Then came our Mr. John A. Britton, greeted, as usual, with uproarious acclaim. Mr. Britton's inimitable smile not only played around his lips but sparkled through his glasses as he gazed upon well nigh one thousand faces of boys and girls of the organization he had watched grow and grow during the past fifteen years. He spoke of himself as "the old bear," and he introduced his fellow directors under the title of "the finest board in captivity." Each rose as his name was called and smilingly acknowledged the salute accorded him. Mr. Britton spoke briefly but in his usual breezy fashion. He congratulated Chairman Fisher and his associates heartily upon the success of their undertaking and he commended the Association, as a body, for so distinctly upholding the spirit of "Pacific Service." A significant note was sounded by Mr. Britton in a passing reference to the situation between the employer and employee and the growing realization of the community of interest between them. "Your reward is coming," he said; "it may be delayed but it is surely coming."

It fell to Mr. Britton to introduce President Edgerton of the State Railroad Commission. In doing so our general manager spoke of "fearlessness tempered with justice" and made special reference to Mr. Edgerton as one who possessed not only the passion but the faculty for making himself understood.

Mr. Edgerton is equally happy when making an address upon the public utility problem or when speaking to the members of a public utility. The words he spoke to us at our dinner were those of a man who appreciates not only the business and the technical but, in a very great degree, the human side of public service. He opened by stating his opinion that the public utility business was a public business, that it could not be construed as a private business, that each member of a public utility was a servant of the public, that it would be a mistake to transfer the allegiance of such employees to public officers. Mr. Edgerton thought "the less regulation the better," but in order to accomplish that condition it would be necessary for every employee to realize his or her own personal responsibility in the organization, and so act as to make regu-

lation less and less necessary. It was vital to the public utility business that capital should be attracted; enormous sums would be necessary in the very near future and if these sums were not forthcoming the utility business must suffer enormous losses. The fact must be faced that capital should be afforded safe, sure return, and, said Mr. Edgerton with emphasis, it was essentially necessary that human beings should be given a fair return.

"You must give service," declared the Commissioner, "and in order that the service may be satisfactory all around it is as vital that each of you should receive a reasonable return for your services as that the capital invested in the enterprise you serve should be insured a fair return. There must be rewards for efficiency and loyalty. Ultimately a scheme may be worked out to insure the employee a fair reward for his individual endeavor."

Dwelling upon the public utility problem from the operating standpoint, Mr. Edgerton referred to the impending shortage of oil fuel and to the restriction of the hydro-electric industry in proportion to the restriction of the water fuel needed for its development. He thought that the present situation called for greater efficiency and for greater effort. The public, he thought, would be critical of failure and was not in a mood to accept excuses. The public utilities, therefore, must realize that in order to gain the public favor that is essential to their success they must put their best feet foremost and climb over rather than hide behind obstacles.

"The time is coming," said Mr. Edgerton, in concluding, "when service in a public utility will be the finest in the State of California, when it will be a matter for boasting that one is employed by a public utility. And, in my judgment, that day is not very far ahead."

Mr. Edgerton's was the kind of talk that sinks deep into the hearts of the men and women employed in a public utility. In some respects it was more, perhaps, than they had hoped to hear from the representative of the regulating body of the State, and, as a consequence, the hearing was all the more welcome. Mr. Edgerton has ever been the friend of the public utility as well as of the public it serves, and it is now a matter of general rejoicing when the word is passed

out that the president of the California State Railroad Commission has consented to address the body of "Pacific Service."

"Pacific Service at Work and at Play," was the title of a series of motion pictures describing persons and events at some of our out-of-town gatherings. The photographing was the work of Mr. V. R. Hughes or "Safety First Hughes," as he is affectionately called. The pictures were well reproduced and thoroughly appreciated. The evening's entertainment came to a close with a song contest directed by Mr. Lowell Redfield. The contestants were required to furnish appropriate verses to the music of some well known song. As each bid for the ten dollar prize came up it was flashed upon the screen and the entire assemblage joined in the refrain. The prize went to Mrs. Ethel H. Rau, of Chico District, for a song entitled "I'm Forever Singing Praises," to the popular tune of "Bubbles." The song follows:

When the sun rests, sinks in the West,  
That is the time we shine—  
The dark-est night, we make it bright,  
We're shin-ing all of the time—  
Our "Bright Lights" are al-ways shin-ing  
So what's the use of repining?

CHORUS

I'm for-ev-er singing prais-es,  
Reaching up to high "C"—  
Out in the night, we shed our light,  
Thanks to the old P. G. and E.,  
Every time they raise us—  
That's what pleas-es me,  
I'm for-ev-er sing-ing prais-es  
For the good old P. G. and E.

Elsewhere in this number of PACIFIC SERVICE MAGAZINE will be found a flash-light picture of the feast which will give the reader some idea of what it means when "Pacific Service" really gets together.

From the banquet hall an adjournment was made to an adjoining room, where our orchestra discoursed the best of jazz music and our boys and girls footed it merrily for several hours. This feature of the evening's entertainment was illumined with a specialty in which the "Charlton Kiddies" gave a most attractive exhibition of the terpsichorean art.

## Honors for "Jim" Martin



James Martin.

It is generally known among members of our "Pacific Service" family that Mr. James Martin, manager of the Drum District, has been called to important duties as construction superintendent of our Pit River development. The following resolutions adopted by

the Placer County Chamber of Commerce, July 10th, reveal the esteem in which Mr. Martin is held in the county which has been his home for many years:

WHEREAS, The board of directors of the Placer County Chamber of Commerce has learned of the assignment of James Martin of Colfax, Cal., as construction super-

intendent of the hydro-electric development known as the Pit River project, and

WHEREAS, James Martin is now a member of this organization and has always been an active, progressive and patriotic citizen and for many years a resident of this county and a man who has the confidence, respect and affection of our people, therefore be it

*Resolved*, That this board extend to him our congratulations on his promotion to a position of such responsibility and best wishes for his success, though regretting that duty's call takes him for the present from among those who have learned to love him and to appreciate his rugged character, his cheery counsel and his straightforward example of American citizenship, and be it also

*Resolved*, That these resolutions be entered into the minutes of this board and a copy sent to James Martin and also to the Pacific Gas and Electric Company.

(Signed) P. B. Goss,

Secretary Placer County Chamber of Commerce.

By order of the board of directors,

E. FRANKLIN, President.



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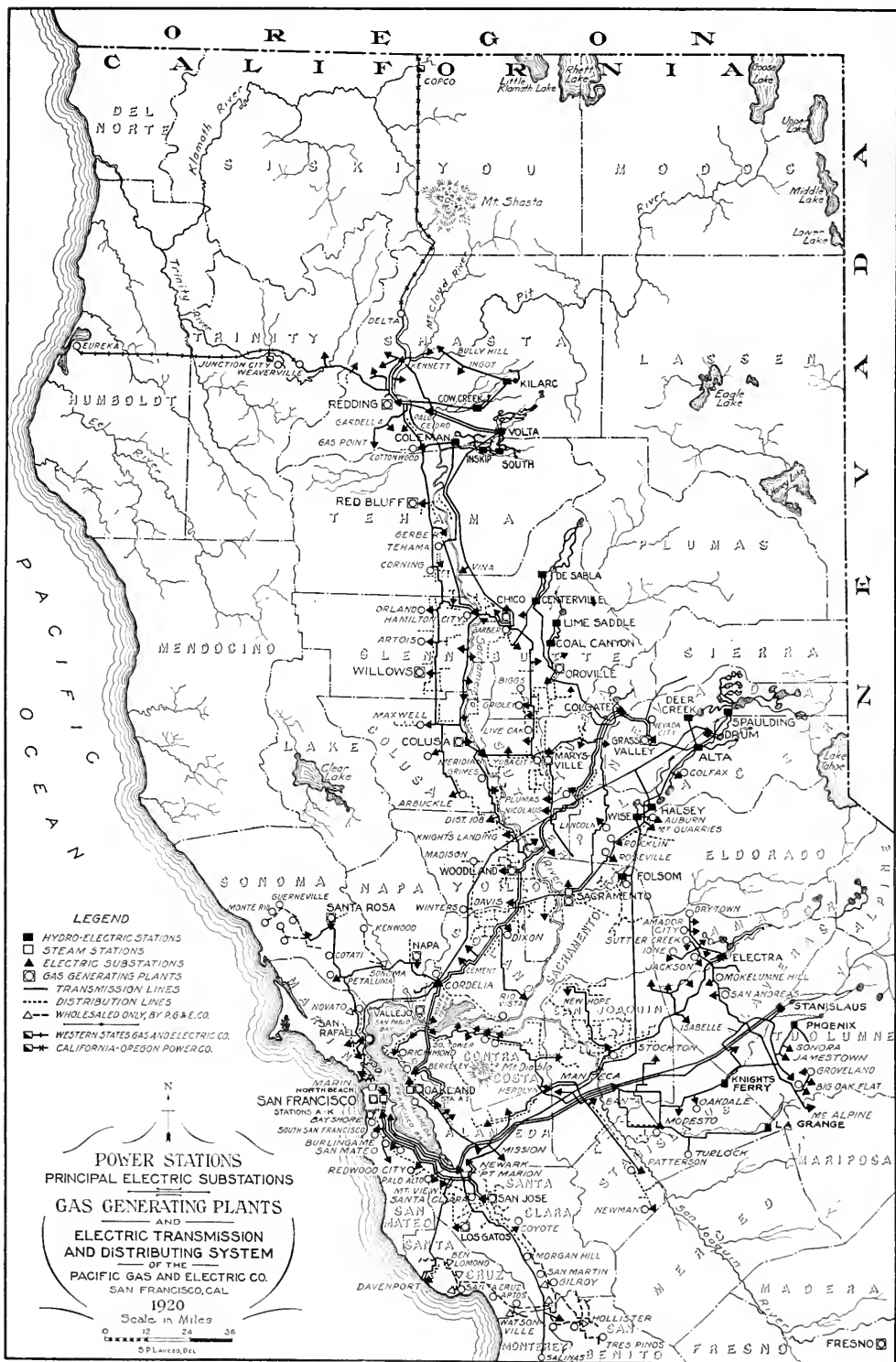
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Gas.....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic).....	13	62,013	8	19,300	21	81,313
Railway.....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	Elmira.....	350	Mitpitas.....	350	<sup>1</sup> San Pablo.....	500
<sup>1</sup> Albany.....	2,300	<sup>1</sup> El Verano.....	400	Mission San Jose.....	500	<sup>1</sup> San Quentin.....	2,500
Alvarado.....	700	Emeryville.....	3,000	Mokelumne Hill.....	300	<sup>1</sup> San Rafael.....	6,000
Alviso.....	550	Esparto.....	250	<sup>1</sup> Morgan Hill.....	750	<sup>1</sup> Santa Clara.....	6,000
<sup>1</sup> Amador City.....	1,100	<sup>1</sup> Fairfax.....	250	Mountain View.....	2,500	<sup>1</sup> Santa Cruz.....	13,600
Anderson.....	800	Fairfield.....	1,000	Mt. Eden.....	210	<sup>1</sup> Santa Rosa.....	11,000
Angel Island.....	280	Fair Oaks.....	300	<sup>1</sup> Napa.....	6,500	Saratoga.....	300
Antioch.....	2,000	<sup>1</sup> Felton.....	300	<sup>1</sup> Nevada City.....	2,900	Sausalito.....	3,000
<sup>1</sup> Aptos.....	300	Folsom.....	2,000	Newark.....	505	<sup>1</sup> Sebastopol.....	1,950
Arbuckle.....	700	<sup>1</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950	Shasta.....	500
<sup>1</sup> Atherton.....	250	<sup>1</sup> Fresno.....	48,867	Orland.....	1,200	<sup>1</sup> Shellyville.....	200
<sup>1</sup> Auburn.....	2,800	Gilroy.....	2,900	<sup>1</sup> Siles.....	1,000	Sheridan.....	250
<sup>1</sup> Barber.....	500	<sup>1</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400	Smartsville.....	300
<sup>1</sup> Belmont.....	375	<sup>1</sup> Grass Valley.....	5,200	<sup>1</sup> Oakland.....	225,000	<sup>1</sup> Soquel.....	400
Belvedere.....	550	Gridley.....	1,800	Oakley.....	200	<sup>1</sup> Sonoma.....	1,290
Benicia.....	2,400	Grimes.....	350	<sup>1</sup> Occidental.....	600	<sup>1</sup> South San Francisco.....	3,750
<sup>1</sup> Ben Lomond.....	800	<sup>1</sup> Groveland.....	250	Orland.....	836	<sup>1</sup> Stanford University.....	2,600
<sup>1</sup> Berkeley.....	65,000	<sup>1</sup> Guerneville.....	750	<sup>1</sup> Oroville.....	5,000	<sup>1</sup> Stockton.....	42,000
<sup>1</sup> Biggs.....	506	Hamilton City.....	200	Pacheco.....	250	Suisun.....	800
Bolinas.....	200	Hammonton.....	500	<sup>1</sup> Palo Alto.....	6,000	Sunol.....	340
Broderick.....	600	<sup>1</sup> Hayward.....	4,000	Paradise.....	500	Sunnyvale.....	1,650
<sup>1</sup> Burlingame.....	4,000	<sup>1</sup> Hillsborough.....	950	Patterson.....	500	Sutter City.....	250
Campbell.....	700	<sup>1</sup> Hollister.....	2,500	<sup>1</sup> Penn Grove.....	250	<sup>1</sup> Sutter Creek.....	1,300
<sup>1</sup> Capitola.....	275	<sup>1</sup> Jone.....	1,000	<sup>1</sup> Perkins.....	250	Tehama City.....	221
Cement.....	1,000	<sup>1</sup> Jackson.....	2,100	<sup>1</sup> Petaluma.....	7,500	Tiburon.....	350
Centerville.....	850	Kennett.....	1,200	<sup>1</sup> Piedmont.....	3,500	<sup>1</sup> Tres Pinos.....	300
<sup>1</sup> Chico.....	15,000	<sup>1</sup> Kentfield.....	500	<sup>1</sup> Pike City.....	200	<sup>1</sup> Vacaville.....	1,250
<sup>1</sup> Colfax.....	500	<sup>1</sup> Kenwood.....	200	<sup>1</sup> Pinole.....	1,800	<sup>1</sup> Vallejo.....	15,500
College City.....	325	<sup>1</sup> Keewick.....	1,800	Pleasanton.....	1,500	Vina.....	300
<sup>1</sup> Colusa.....	1,800	Kings Land- ing.....	400	Port Costa.....	1,000	Vineburg.....	200
Concord.....	850	<sup>1</sup> Larkspur.....	2,000	Princeton.....	300	Walnut Creek.....	500
Coram.....	666	Lewiston.....	200	<sup>1</sup> Red Bluff.....	3,530	Warm Springs.....	200
Cordelia.....	300	<sup>1</sup> Lincoln.....	1,500	<sup>1</sup> Redding.....	3,572	<sup>1</sup> Watsonville.....	6,000
Corning.....	972	<sup>1</sup> Live Oak.....	300	<sup>1</sup> Redwood City.....	4,200	Wheatland.....	500
Corte Madera.....	350	<sup>1</sup> Livermore.....	2,500	<sup>1</sup> Richmond.....	16,500	Williams.....	625
<sup>1</sup> Cotati.....	200	<sup>1</sup> Lomita Park.....	450	Rio Vista.....	1,000	Winters.....	1,139
Cottonwood.....	400	Loomis.....	450	<sup>1</sup> Rocklin.....	900	Woodland.....	1,200
Coyote.....	200	Los Altos.....	500	<sup>1</sup> Rodeo.....	300	Woodside.....	225
Crockett.....	3,000	Los Gatos.....	3,000	<sup>1</sup> Roseville.....	4,200	Yolo.....	350
Crow's Landing.....	300	Los Molinos.....	200	<sup>1</sup> Ross.....	900	<sup>1</sup> Yuba City.....	1,750
<sup>1</sup> Daly City.....	5,500	<sup>1</sup> Madison.....	250	<sup>1</sup> Sacramento.....	76,000		
Danville.....	400	<sup>1</sup> Mare Island.....	500	San Andreas.....	750		
Davenport.....	300	Martinez.....	3,500	San Anselmo.....	3,000		
Davis.....	1,700	<sup>1</sup> Marysville.....	6,000	San Bruno.....	1,500	Total Cities and Towns.....	1,441,488
Decoto.....	300	Maxwell.....	480	<sup>1</sup> San Francisco.....	580,000	Add Suburban Population.....	403,687
<sup>1</sup> Dixon.....	1,200	Mayfield.....	110	<sup>1</sup> San Jose.....	45,000		
<sup>1</sup> Drytown.....	225	<sup>1</sup> Menlo Park.....	1,100	<sup>1</sup> San Juan.....	550		
<sup>1</sup> Duncan's Mills.....	200	Meridian.....	225	<sup>1</sup> San Leandro.....	5,000		
<sup>1</sup> Durham.....	300	<sup>1</sup> Millbrae.....	300	<sup>1</sup> San Lorenzo.....	400	Total Popula- tion Served.....	1,845,175
<sup>1</sup> Dutch Flat.....	750	<sup>1</sup> Mills.....	350	<sup>1</sup> San Mateo.....	200		
<sup>1</sup> Eldridge.....	500	Mill Valley.....	3,200		6,000		
<sup>1</sup> El Cerrito.....	1,200						

Unmarked—Electricity only. —Gas, Electricity and Water. —Electricity supplied through other companies.  
 —Gas only. —Gas, Elect. and St. Railways. —Gas supplied through other companies.  
 —Gas and Electricity. —Electricity and Water. —Water supplied through other companies.

### "PACIFIC SERVICE" FACTS:

Number of Electric Consumers ..... 253,183  
 Number of Gas Consumers..... 275,516  
 Number of Water Consumers ..... 16,159  
 Number of Steam Consumers ..... 428  
 Total number of consumers ..... 545,286  
 Operates 19 Hydro-Electric Power Plants.  
 Operates 3 Steam-Electric Power Plants.  
 Operates 20 Gas Plants.



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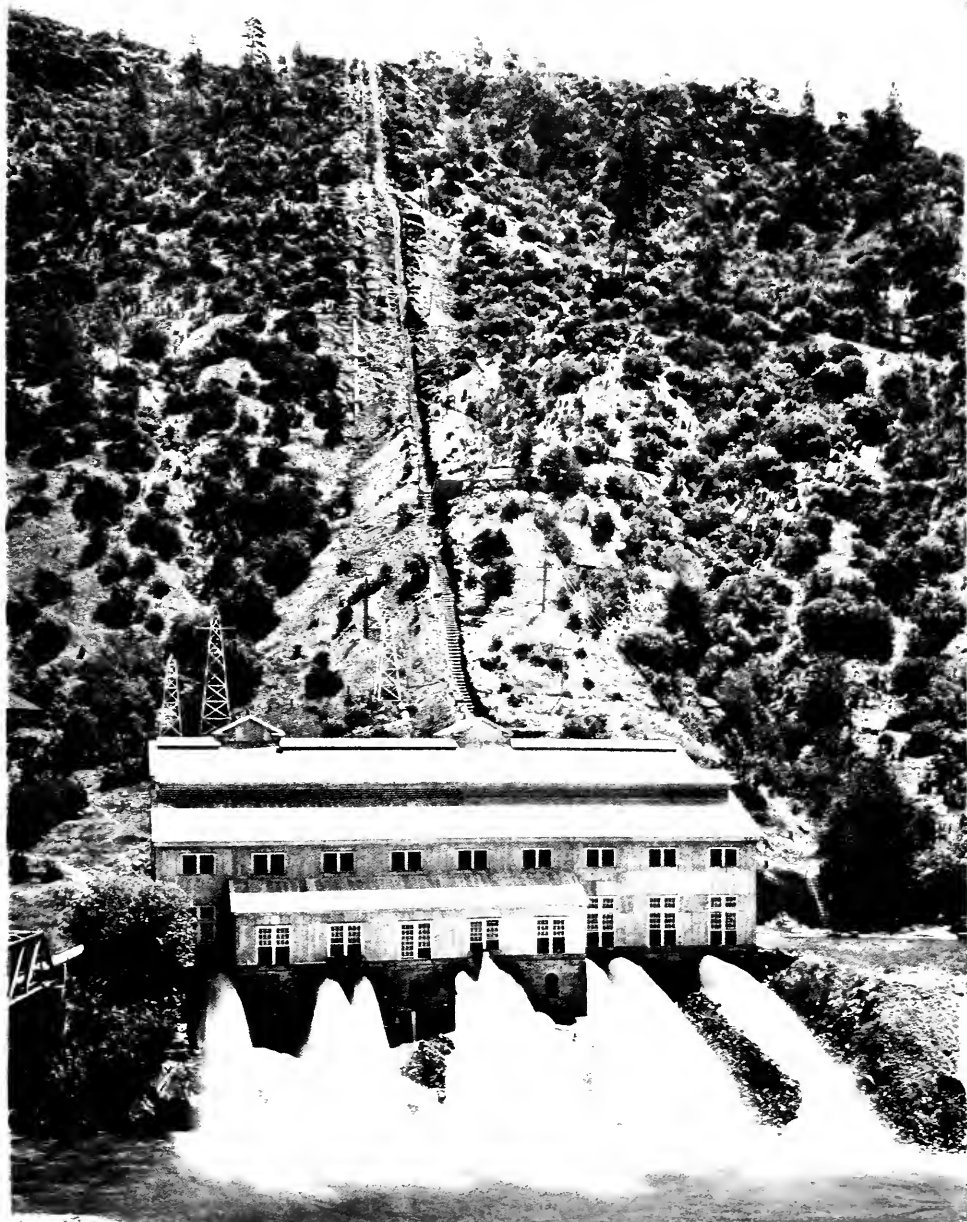


When writing, please mention PACIFIC SERVICE MAGAZINE



# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



STANISLAUS POWER HOUSE, ON THE RIVER OF THAT NAME, NEAR SONORA

Vol.  
12

AUGUST 1920

No.  
3

# PACIFIC GAS AND ELECTRIC COMPANY

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# Pacific Service Magazine

Volume XII



Number 3

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Wigginton E. Creed, President of the Pacific Gas and Electric Company. Elected July 28th, 1920.



# PACIFIC SERVICE MAGAZINE

Volume XII

AUGUST, 1920

Number 3

## Our New "Pacific Service" President

"PACIFIC SERVICE" extends a welcoming and cordial hand to Wigginton E. Creed, its President, conscious of the fact that in so doing it will find in him a ready response to the principles which have governed the conduct of its business since its advent into the public utility arena.

Mr. Creed is no stranger to the problems and perplexities that confront an executive of a corporation devoted to the task of service to the public. He has faced such problems and conquered them in another field of action, and it will be in order at this time to briefly recite some of the things we know of him.

Born in the State of California, educated in the public schools of Oakland, and in the University of California, he possesses environment, atmosphere and intimate knowledge of the particular conditions that relate to this State, its people, their needs, wants, aims and ambitions; for right here and now may it be said that one to the manor born has intuitively a better sense of the rights and privileges of his neighbors than one who is reared without such contact.

Following in the footsteps of his father, W. H. Creed, a noted practitioner at the California Bar, Mr. Creed chose the profession of law as his field of action, and his success in that field was such as to attract the attention of business men. So, one day—not, however, until he had attained signal honors in his profession—he was called into active service in the utility field. His management of the affairs of the East Bay Water Company, in its reorganization, stamped him at once as an executive of unusual quality, with the possession of talents that enabled him to master the intricacies of the public utility game.

In addition to his public service work, he has had marked success in the management of the large affairs of the Columbia Steel Company, and, also, the manifold duties appertaining to the C. A. Hooper Lumber Company and its subordinate interests, serving as President of both of these large industrials. He is also a director of the Wells Fargo Nevada National Bank, and associated with many humanitarian activities.

So much, briefly, that the readers of PACIFIC SERVICE MAGAZINE may know of our new President's training in various characters of service.

The man who is placed by his fellow men in a position of trust over their affairs must be able to bear rigid scrutiny into his character, reliability and fitness for service. It was under just such scrutiny that Mr. Creed was chosen president



of the Alumni of the University of California, and as such served on the Board of Regents of that University. He proved helpful and resourceful at all times and in all emergencies.

He is married, has a family of five children, is a home lover. But he finds time for needful recreation in outdoor sports, being a lover of animals and no mean Nimrod.

He is little more than two score years of age, yet his already vast experience in the public service field, as well as his strongly marked characteristics of virile manhood, fully qualify him for the position of chief executive of an organization such as ours.

May we say, at this time, that he will find in our organization a sense of loyalty and devotion to authority not equaled in any other organization, a spirit borne of years of activity in the building up of "Pacific Service"? May we assure him that our entire organization, one hundred per cent strong, stands pledged to make his administration a success in the same manner, and with the same energy and force, that made the administration of his predecessor, Frank G. Drum, an unqualified success?

And, to Mr. Drum let us at this time offer our appreciation and congratulation for his thirteen years of untiring and unselfish work in the building up of the company, in its morale, integrity and financial strength, work which has made the name "Pacific Service" a slogan of honor and one which is respected and admired. We feel sure that this reputation will be fully sustained by Mr. Creed, who in addition to his other qualities, has one which spells success, and that is an interest in and consideration for the human element that enters so largely into the ultimate success of a corporation dealing with the public.

Problems to face, and problems to solve, so that consumer and company and employees may all enjoy the fruits of successful effort, will be the task of our Chief Executive. That he will meet them well and ably is guaranteed by the record of his progress in the various paths of life's endeavor which he has trodden during his active career.

So welcome, Mr. Creed, to your new duties. It will be our pleasure to make them easy for you by the smiles and cheers of your five thousand associates in "Pacific Service."

*John A. Britton.*  
*Vice President & General Manager.*

San Francisco, Cal.  
August, 1920.

## *Heads of Our Company Organization Voice Greetings to Messrs. Creed and Drum*

---

On the evening of Monday, August 2, Mr. Wigginton E. Creed, as the incoming president, and Mr. Frank G. Drum, as the retiring president, were tendered a complimentary dinner by the officers, heads of departments and district managers of "Pacific Service."

The scene of the gathering was the Palace Hotel, San Francisco. It was indeed a pleasant way of introducing Mr. Creed to the personnel of the organization of which he had been so recently chosen leader. It afforded, also, the department and district heads of that organization an opportunity to personally express to Mr. Drum their appreciation of his never failing consideration and courtesy to each and every one with whom he had been brought in contact during his thirteen years of service in the onerous position from which he was retiring. In this connection there was, perhaps, a tinge of sadness in the atmosphere of an evening which in every other respect was set apart for cordial fellowship and good cheer. This feeling, however, wore off as the evening advanced; for, after all, there was the pleasant reflection that Mr. Drum, while laying down the rod of chief authority, will not be lost to "Pacific Service"; as already officially announced, he remains with us as a director and member of the executive committee.

It is, also, a great pleasure to record the words spoken by Mr. Creed in his address, which showed how well he knew and appreciated the caliber of the men he was succeeding, the men who had founded and built up and watched grow from small beginnings to its present prospect of almost unlimited expansion, the enterprise known far and wide as "Pacific Service." The incoming

president's remarks were not only eloquent in their simple sincerity but, also, gave expression to an evident feeling of earnest purpose that struck responsive chords in the hearts of his listeners.

There was an almost complete representative attendance. At the head table Mr. Creed held the place of honor, with Mr. Drum at his right and Mr. Britton at his left hand. Seated at this table were Messrs. Henry E. Bothin, W. H. Crocker, John S. Drum, J. A. McCandless, John D. McKee and C. O. G. Miller, of the Board of Directors, Second Vice-President and Treasurer A. F. Hockenbeamer, Secretary D. H. Foote, Garret W. McEnerney, chief counsel for the company, Vice-President P. M. Downing, Assistant Secretary Chas. L. Barrett and Assistant Treasurer Jos. C. Love. At the other tables were seated heads of departments, district managers and others, making up an aggregate attendance of seventy-five members of the "Pacific Service" family.

A special menu had been selected for the occasion and, needless to say, was thoroughly enjoyed. After the black coffee came the speech-making. It fell to Mr. Britton, of course, to present the guests of honor. Taking Mr. Drum first, our general manager sketched the story of hydro-electric enterprise from early days in California when the miners built dams and constructed spidery flumes to promote their industry, little thinking, at the time, that one day those dams and those flumes would be made the nucleus of a great development that will insure agricultural, industrial and every other kind of prosperity to our Golden State. Mr. Britton told of the first experiments in hydro-electric transmission and he voiced words of genuine regret at the absence of two men to whose courage

and resourcefulness the whole of north-central California owes an immeasurable debt, Messrs. John Martin and Eugene de Sabla.

Presently Mr. Britton's voice trembled and his eyes filled with emotion as he told of one who had come later but by his unusual foresight and financial ability had made for himself a name as high and as strong as those who had gone before. Mr. Drum's connection with what is now "Pacific Service" began many years ago when the California Gas and Electric Corporation went through its early stages of endeavor in the upbuilding of a vast community through the development of hydro-electric power. "I remember," said Mr. Britton, "how four of us sat together in the Rialto Building and discussed what seemed to be the end of the trail. The four were Messrs. Martin, de Sabla, R. R. Colgate and myself. We found our way blocked without financial help, and we wondered whom we might possibly interest in what we knew to be a sure success if only carried through to completion. It was then I thought of one I had known in boyhood, one with whom I had walked and swam and boxed.

"Frank Drum was then, as he is now, a cautious man. I presented a great picture to him; I told him of snow-peaked Sierras, of gushing streams, everything to attract his fancy. Finally he said, 'I'll think about it.' Then, one day, he came in and joined the gang. With his ability he did as much, if not more, than any of us had done, and when sudden disaster came upon us in the conflagration of 1906 Frank Drum was one who never lost heart, whose vision saw over the heads of others. He made it possible for us to see also, and he went forward and took us with him."

Mr. Britton concluded his touching address with not a farewell but an *au revoir* for the retiring president of "Pacific Service." In so doing he assured

him that his words of appreciation were echoed in every heart in the "Pacific Service" family.

Mr. Drum is a man of few words. He is no professor of oratory. But the few words he spoke in response to Mr. Britton's eulogy were eloquent in their tone of deep feeling. His voice faltered as he said, "Thank you all. I hope you'll give Mr. Creed the same loyal support you have given me. Thank you."

Then came Mr. Britton's introduction of the new president. He presented Mr. Creed as one whom he had known for forty years. He had known him as a child and had seen him grow and develop into a man of wide interests. He was a Californian in growth, in thought and desires. Virile, active and generous, he had all the attributes of a leader and, assured Mr. Britton, "he knows the game."

President Creed made the kind of talk that his hearers liked. He spoke simply, modestly and to the point, and behind it all seemed to lie the resolute determination of a man who would work to the utmost to carry to successful completion any undertaking in which he embarked. He spoke as follows:

"Mr. Britton, Mr. Drum and Gentlemen:

"You men who are married will understand me when I say that I have been conscious here tonight that the same sentiments and emotions have been surging through me which affected me when, after Mrs. Creed had accepted me, I first met her numerous relatives at a large dinner. I felt humble on that occasion and I feel humble upon this occasion; and it is not remarkable that one should feel humble when one thinks of these men here present who have built the foundations of this company. No one knows better than I what of foresight, what of courage, what of reasoned judgment have been possessed by Mr. Drum and the men who worked with him to have enabled them to fight and win the battles for this great organization.

"I feel tonight that it would be out of place for me to attempt in any ornate way to discuss the future of this company, its purposes and its objects; but rather do I feel like speaking to you out of my heart, in a friendly way, regarding some of the things which I feel. I have come into this great organization with the profoundest respect for that organization as made up, and with the profoundest appreciation of the value of that organization. I know that it is not buildings that make universities, it is not buildings that make great cities, and it is not material properties that make a great company like this. The greatest asset any organization has is its human material, the life, soul and hope of the organization. Knowing that, I want that contact with you out of which comes understanding, and that understanding out of which comes co-ordinated effort, because I know and I feel that out of that understanding the responsibility of decision which rests upon the constituted head of a great business organization like this will the more thoroughly and the more easily be met.

"As Mr. Britton has said, the foundations of this company are laid in the very heart of the State of California; and I know how well those foundations have been planned and built by this man on my right and this man on my left, to carry the superstructure which they now carry, and for the superstructure which is yet to come. The building will go on. It is as sure as the State of California; for if there is one activity in the world which is wrapped up with the economic growth and, in a large sense, the social growth of the State of California, it is this great organization which you represent and which you make. And coupled with the efforts which must be made to add to the structure, to anticipate the future, must be the thought that, in addition to serving in an economic sense the owners of this property, we are fortunate, while being able to do that, to ren-

der a real service to humanity in continuing to make this company a part—and a fundamental part—of the State of California.

"We are a regulated utility. As such, we must view in a defensive sense the great, serious problems which are still in a state of flux, having to do with regulation. But in a larger sense we must feel that we are rendering a service not only to ourselves, but to the whole field of development, in helping to arrive at sound solutions for those problems which press upon us.

"And as a final word, endeavoring to keep within the limitation which I outlined at the beginning, I want to say that I believe profoundly that in an organization of this kind there should be given to the men who make it the fullest and the freest opportunity for self expression, development and reward consistent with their contribution to the accomplishment of the great purposes and objects which move us in our task.

"Let me add that it has been a real pleasure to meet you here face to face, to have this opportunity in a brief way to say a word to you, and to say finally that I look forward with the greatest anticipations of joy to the contacts which we shall have in carrying out the great trust which rests upon us. I thank you."

The evening closed with stereopticon views of our company's system. Those picturing hydro-electric features were explained by Mr. P. M. Downing, those relating to the gas department by Mr. W. S. Yard. Last of all, some views of the Pit River were flashed upon the screen, and here Mr. F. G. Baum came forward with an exhortation to all good members of the "Pacific Service" family to get in and boost for the greatest hydro-electric project ever unfolded to the industry in California.

F. S. M.

## *The Electrical Home Exhibit*

SUCCESSFUL INAUGURATION IN SAN FRANCISCO OF WHAT PROMISES TO BE A SERIES OF SPECTACULAR DEMONSTRATIONS OF THE POWER THAT ELECTRICITY POSSESSES OF MAKING THE HOUSEWIFE'S TASK ONE OF ELEGANCE AND COMFORT, DEVOID OF CARE OR DRUDGERY

The almost incredible degree of comfort which the up-to-date application of electricity can bring into a home was wonderfully illustrated by the Electrical Home in San Francisco, which opened to the public June 11th and remained on formal exhibition during the balance of the month.

This enterprise was the result of the combined efforts of the California Co-operative Campaign, the San Francisco Electrical Development League and the Mason-McDuffie Company, through the agency of which latter firm a location was found in picturesque St. Francis Wood. As will be seen from the accompanying illustration the dwelling selected for the exhibit was a handsome two-story structure, with every modern convenience for the comfort of the in-

habitants. It was completely furnished and made ready for occupancy and was equipped with every necessary electrical device to reduce household labor to the minimum.

One fact worthy of special mention was the convenience outlets installed in the baseboards and floors, doing away with the necessity of connecting appliances to chandeliers, a practice found to be inconvenient and somewhat dangerous. Even persons fairly well versed in the possibilities of applied electricity were amazed at the profusion of devices that were on exhibition and in active operation everywhere. In the living room were found reading lamps, table lamps, electric heaters, motor-driven victrolas, motor-driven player pianos. In the breakfast room were displayed per-



The Electrical Home, on Junipero Serra Boulevard, San Francisco, the scene of a most successful exhibition that attracted crowds of interested visitors.

colators, toasters, every device enabling the mistress of the house to cook an entire breakfast, from coffee to waffles, without leaving the table. The kitchen was equipped with an electric range, water heater and dishwasher, every labor-saving device that modern electrical science could supply. The dining room was furnished with every kind of useful appliance operated without interfering with any of the lights. In the laundry electrical washing machines, ironers and electric irons were found, doing away with all the labor which formerly made this section of the domestic scheme one of grinding toil. In the rooms upstairs were installed electric sewing machines, vacuum cleaners, curling irons, hair driers, warming pans, every convenience for the domestic ease and comfort.

The electrical home, altogether, was equipped from roof to basement with every modern device operated by electricity through which housework is reduced to the minimum labor point.

Large crowds attended the exhibitions given daily in this home by experienced demonstrators. Several hundred invited guests attended the opening ceremonies on June 11th. Our Mr. John A. Britton delivered the opening address. In the course of his remarks he said: "I have looked through this home and find only one thing lacking to be operated by electricity—that is, a cradle. There is a saying that the hand that rocks the cradle moves the world, but I am beginning to believe this hand is shortly to be supplanted by the unseen hand of electricity." Supervisors W. S. Scott, chairman of the building committee, and Edward I. Wolfe, chairman of the public utility committee of the San Francisco board of city fathers, spoke appropriate words in commendation of this up-to-date enterprise. Mr. E. O. Shreve of the General Electric Company, chairman of the San Francisco Electrical Development League, presided over these opening ceremonies.

Several social functions were given in the home during the demonstration

period, notably a housewarming party given to the membership of the St. Francis Wood Home Association and a gathering of the Housewives' League, at both of which practical demonstrations were given of the efficiency and economy of electricity in the home.

One test worthy of special mention was the transmission of musical strains from the Sunday morning concert of Herman Heller's orchestra at the California Theater by wireless telephone. Each number on the program was heard in all parts of the home, which was thronged with interested visitors.

If this exhibit did one thing more than another worth while it was in emphasizing the need of greater co-operation between the electrical organizations and the architects and contractors and prospective home owners. The electrical home was built and furnished to show the general public how electricity properly applied can make the home a better place to live in. Electricity properly applied has been shown to be the means of increasing production and reducing the cost in every form of industry. The world today could not get along without the telephone, the telegraph, street cars, electric lights, adding machines and other numerous conveniences which owe their best operation to the mysterious energy we call electricity.

It is felt, therefore, that the twentieth century housewife should be given the same opportunity to avail herself of all that electricity can do for her if she will but call upon it. It is felt to be the duty of the electrical industry to see that she is properly informed upon this most important question. The electrical home in San Francisco is but the pioneer of a number of enterprises of similar description in other parts of the State. An electrical home is being equipped in Sacramento and others will soon follow. No pains will be spared to thoroughly bring home to the people of the State of California a realization of the inexhaustible comforts that lie within their reach and are theirs for the asking.



## *The Public Utility and Its Stockholders*

AS ITS REAL OWNERS THEY SHOULD BE BROUGHT INTO INTIMATE TOUCH WITH THE INNER WORKINGS OF THE ORGANIZATION WHOSE SUCCESS OR FAILURE MEANS SO MUCH TO THEM

Commencing with the present issue, it is proposed to send PACIFIC SERVICE MAGAZINE every month to the stockholders of our company.

In taking this step the management is actuated by a desire to do all in its power to establish and maintain that intimate relationship which should exist between the stockholder, as a part owner in the public utility enterprise, and the directors and officers of that enterprise, who are really the servants of the stockholders.

There are two classes of public utility securities, namely, bonds and stocks. And, there is as much difference between a bondholder and a stockholder as there is between any commercial house and the bank from which it borrows money. For, the bondholder is a creditor of the enterprise to whom the stockholders owe money. In that lies the difference, and thus it can be readily seen that the respective interests of bondholder and stockholder are wide apart, and should be viewed from totally different standpoints.

As long as the bondholder receives the interest which falls due upon his holdings from time to time, and recovers his principal at each bond's maturity, and as long as he knows that the company is efficiently managed in the way of maintaining its properties, which are security for his bonds, in good condition, he has no further interest in the enterprise. If the company is very prosperous he receives no direct benefit from that increased prosperity other than a possible slight advance in the value of his bonds arising from the increased credit and security of a prosperous business.

On the other hand, the stockholder is the real owner of the company. Its prosperity is his benefit; its poverty his loss. If the company, supposing it to be a public utility and as such subject to the jurisdiction of a rate-making body, is allowed adequate rates for the operation and upkeep of its property, the payment of interest on its indebtedness and the maintenance of a sinking fund to retire that indebtedness at the proper time and leave a comfortable surplus to be divided among the stockholders each in proportion to his holdings, then that stockholder's interest increases in value. The company is able to obtain money at reasonable rates from the people of the bondholder class to develop and increase its business and to increase its earnings thereby.

But, if the rates charged by the utility for its commodity should be reduced to a point where the enterprise itself is just kept alive, so that it cannot obtain money at all for development purposes or, in any event, is compelled to pay a prohibitive rate for that money, the amount to be divided among the stockholders becomes jeopardized and the value of the stockholder's interest in the enterprise itself decreases greatly.

Now, take a public utility such as ours. It is safe to say that the day of cheap fuel oil is over. The people of California must operate their industries by hydro-electric power and must do their heating, for the most part, by gas. Both these products, then, must be developed to the utmost limit if the State of California is to progress as she is entitled to progress by reason of her unusual climatic conditions and the natural resources at her command. It stands to sense, then, that the number of bondholders and stockholders in the various public utilities of the

State must be greatly increased; and this can only be done if the companies are allowed to earn an adequate return upon their investment.

The time has come when the people of California should realize to the full the responsibility upon them to support, actively and generously, the public utilities operating in their midst. With this they should understand that only through being allowed to earn a fair return upon investment can these utilities be made to operate successfully. It is far more important to everybody in the State of California that these utilities should be developed to their utmost than that their patrons should obtain some slight reduction of their electric light, power and gas bills.

Therefore, it is the duty of the stockholder, as a part owner in the utility, to do his share in impressing this sense of responsibility upon the people around him. It is the duty of the stockholder, yes, and of the consumer, to have this idea constantly before him and for his part to see that our public utilities are properly sustained in order that they may be enabled to develop the necessary supply of the commodities so sorely needed at this time of unusual progress and advancement in every field of industrial and commercial endeavor.

So, in order that the stockholders of "Pacific Service" may be properly informed at all times as to the condition of the company of which they are the owners, of what our company is doing to supply the demands of the people, how it is developing, in what condition are its properties, what is being done in the way of additions and betterments—briefly, in order that the directors and officers of this company, as trustees for the stockholders, may be enabled to make open record of their stewardship, PACIFIC SERVICE MAGAZINE, as the house organ of "Pacific Service," will be mailed to its stockholders every month from now on.

The officers of "Pacific Service" feel that the comparatively slight expense involved in thus increasing the complimentary distribution of PACIFIC SERVICE MAGAZINE will be more than made up by the value it will be to the company's stockholders, as well as to the company as a whole, in supplying the right kind of information concerning the company's activities and keeping alive the general interest in the company as a public utility enterprise.





## Three Members of Our "Pacific Service" Family Receive Well-Earned Promotion

From the president's office comes the announcement of the following appointments, effective September 1:

Mr. Frank A. Leach, Jr., manager Alameda County District, to be assistant general manager of the company, with headquarters in San Francisco.

Mr. Lee H. Newbert, manager of the Commercial Department, to be transferred to Oakland as manager of the Alameda County District.

Mr. R. E. Fisher to be manager of the Commercial Department.

Announcement of these appointments was made in a circular letter issued by Mr. John A. Britton, August 11. In this letter Mr. Britton wrote:

"The promotion of these men in the employ of the company indicates the policy of the company in recognition of fitness for promotion. Mr. Leach has been in the employ of the company for twenty-two years and has demonstrated his ability to occupy a higher position and one of greater responsibility. Mr. Lee H. Newbert, by his management of the Commercial Department and knowledge of districts, has in over twenty-five years of service given evidences of ability to handle the larger interests which have been so well taken care of under Mr. Leach's direction. Mr. Fisher, by contact through the Commercial Department as assistant to Mr. Newbert, is fully capable of assuming the duties and responsibilities of that position."

The news of these important changes spread through out "Pacific Service" family very quickly and from all sides the spoken word has been one of unqualified endorsement and congratulation. Mr. F. A. Leach, Jr., whose range of acquaintanceship is very wide indeed, has been fairly showered with congratulations, and the members of his own staff, while sincerely mourning the loss of his daily companionship, are fairly elated that the important position of assistant general manager of our great organization has fallen to one of their own number. The following are excerpts from among the batch of congratulatory epistles that have been received by Mr. Leach since the good news was spread:

"It is a promotion well deserved and a matter of pride to all of us that one of our family has been chosen to assist its Head."

"It is the best thing 'Pacific Service' has ever done and it is the one time everybody wins."

"I most heartily and sincerely congratulate you and consider it a partial recognition of the faithful and efficient service which you have given this company all these years."

"It is extremely refreshing to at least see that the 'Old Guards' are receiving full recognition at the hands of the company in appreciation of their long years of faithful service, and I feel that the action which has been taken by the management in this regard will do more to again bring our organization into step than anything that has been done for some years past."

"This recognition of your ability is very gratifying to me and to each and every one in 'Pacific Service.' It means more to the organization than can be fully appreciated at this time."

"As a matter of fact, Frank, I feel that the organization is more to be congratulated than you, for Circular Letter Ex-324 means much to them in that it is renewed assurance that promotion is sure to come to the individual in direct proportion to the energy and ability applied to the work in hand and their loyalty to the company."

"This did not come as a surprise to me, as we have all been aware for a long time that you would in the near future be at the head of this company."

"Your new position as assistant general manager will no doubt call for a certain amount of interest in the outside districts of the company and I look forward with pleasure to this new link connecting me with the Head Office through one whom I have known and respected for so many years."

Mr. Britton, too, has received numerous expressions of personal appreciation from members of our "Pacific Service" family who heartily welcome the evidence thus given by our beloved chief of a determination to give substantial re-

ward for efficient and loyal service. One district manager, referring to the circular letter announcing the appointments, writes:

"It is a wonderful letter and one which I am sure will go down into 'Pacific Service' history as doing more for continuing the fine morale of your organization than any announcement that has heretofore left your hand. An organization that would not respond to the announcement contained in that letter would be woefully lacking in all the essentials that go to make up a live, responsible organization. It clearly indicates in a decisive way the continuance of a policy to secure from the ranks the material for the more responsible positions in the company. As a member of the 'Pacific Service' family I want to thank you for the encouragement you have placed before us."

Mr. Lee Newbert and Mr. Earl Fisher, like Mr. Leach, have been recipients of hearty congratulations all round. Mr. Newbert was district manager at Redwood City before he came to the head

office to take charge of the Sales Department. Like Mr. Leach, he knows the game. He is a man of wide acquaintance, and his recent election to the presidency of the Pacific Coast Section of the National Electric Light Association has elevated him to a position of considerable prominence among the public utility men of the country.

Mr. Earl Fisher is a younger member of "Pacific Service" family, certainly younger in years of service. Nevertheless, in addition to the performance of his duties as Mr. Newbert's assistant, he has earned recognition. He has been chairman of the Electrical Development League, has had a hand in the affairs of our local N. E. L. A., and is, at the present time, a very able and energetic chairman of our Pacific Service Employees Association.

Messrs. Leach, Newbert and Fisher, therefore, go to their new positions with the hearty congratulations and good wishes of all members of our "Pacific Service" family.

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## *How Presence of Mind and Knowledge of Up-To-Date Methods Saved a Human Life*

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By P. M. DOWNING

A very striking illustration of the importance of employees familiarizing themselves with the method of resuscitation to be used in the case of electric shocks came to our attention a short time ago. A report was received by the operator in Cordelia substation that a small boy had been killed climbing a tree by coming in contact with a high-voltage wire. On receiving this report, Operator H. B. Moore immediately went to the scene of the accident and found what appeared to be the lifeless body of a boy on the ground near the butt of the tree. A number of people already at the scene of the accident had given up hope of saving the boy's life and were apparently waiting for instructions as to what disposition should be made of the body.

Mr. Moore was familiar with the methods of resuscitation in accidents of this kind and immediately began to apply them, with the result that within a very short time the boy began to show signs of life and by the time the doctor arrived he was breathing naturally. Had it not been that Mr. Moore was familiar with the rules of resuscitation in accidents of this kind there is no question that it would have been too late to save the boy's life by the time the doctor arrived.

The prompt and intelligent action on the part of Mr. Moore is worthy of the highest commendation as it unquestionably saved the boy's life.

Mr. Moore began his employment with this company in 1917 as an operator at San Rafael Substation. He was subsequently transferred to North Tower and later to Cordelia.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

The summer vacation, in the natural order of things, has brought about a temporary cessation of social and other activities in our Association, save for the two events which are always brought off during this period, namely, the annual dinner and the annual picnic.

The dinner, as our readers know, has been chronicled among the past events and the picnic, according to schedule, will have been held by the time this issue of PACIFIC SERVICE MAGAZINE reaches its readers. So, while there is breathing space before taking up the activities of the second half of the present season, let us glance over the year's record, so far, in retrospect.

As was the case last year, the influenza epidemic was responsible for a tardy resumption of activities. The opening ceremonies were held in San Francisco March 9, when President Fisher and his board of officers were introduced to a large gathering of members of the "Pacific Service" family. The program for the year was outlined at this meeting and the enthusiasm which greeted its announcement augured well for a successful season. That this happy augury was fulfilled may be now generally acknowledged. The out-of-town gathering held at Sacramento under the auspices of that district combined with the districts of Yolo and Solano, on March 20 and the day following, went with a snap that resulted in considerable additions to our membership from that section of the "Pacific Service" territory. Then, on March 22, came the Frolic at Oakland, in which District Manager Frank A. Leach and his corps of capable assistants established a record that will be hard to live up to, let alone surpass, in the seasons to come. There followed another out-of-town gathering at Vallejo and Mare Island on April 10, under the auspices of Vallejo, Napa and old Contra Costa districts. This was held in wonderful weather and was delightful in every way.

The month of April was responsible for further additions to the record of successes. An expedition to Auburn and Lake Spaulding was pulled off on April 24 and 25 under the auspices of Placer,

Drum and Nevada districts. Of the five hundred men and women who joined in this event it is safe to say that no one of them entertains any but the most delightful memories, including, as they must, the transition from the genial warmth of the Auburn Valley to the brisk and health-giving atmosphere of the snow region. Then, on April 27, came the first dramatic entertainment of the season when the "Pacific Service" Players' Club presented "Cupid in Khaki" before an unusually large and appreciative audience at Ebell Hall, Oakland.

On May 29, 30 and 31 the Association's out-of-town excursion program for the current season added another star to its record by the gathering at Chico and de Sabla in which the Chico, de Sabla, Northern and Coleman districts were joint hosts.

On June 17 the annual dinner was held at the Palace Hotel, San Francisco. This always delightful entertainment was distinguished this year by the presence of an unusually representative gathering of "Pacific Service" directors. A feature worthy of special remembrance was the address of Mr. E. O. Edgerton, president of the California State Railroad Commission.

The month of July was blank, save that our executive committee met to transact current business and arrange for future activities.

So much for what has gone before. Concerning the annual picnic scheduled for Saturday, August 21, all that need be said at the present time is that if realization comes anywhere near anticipation the gathering at Alum Rock Park, near San Jose, will have reflected credit not only upon the managers of the San Jose and Redwood districts who are mainly responsible for the arrangements, but will have gone far toward proving that when our Pacific Service Employees Association, as a body, sets out upon a particular journey, it knows not only how to set a pace but how to keep that pace up. Committees in charge of the various divisions of the picnic program have worked like beavers and are still working. Their chairmen have not hesitated

to recruit assistance from all nearby sections of the "Pacific Service" territory. In the September issue of PACIFIC SERVICE MAGAZINE we hope and expect to present a glowing account of this al fresco entertainment in the genial atmosphere of the Santa Clara Valley. That our hopes and expectations are not founded upon sand will be acceded when we present the following list of special picnic committees:

Barbecue committee—John D. Kuster, chairman; dance committee, H. S. Lane, chairman; judges committee, F. R. George, chairman; publicity committee, F. S. Myrtle, chairman; reception committee, E. W. Florence, chairman; sports committee, H. W. Beekman and H. L. Eckenroth, joint chairmen; stunts committee, W. T. Kellogg and E. G. McCann, joint chairmen; transportation and announcements committee, W. M. Henderson, chairman; police committee, F. G. Maynard, chairman. (Let not the formidable title of the last named committee scare people away. We understand it is all quite harmless.—Editor.)

At the last meeting of the executive committee in San Francisco the announcement was made that the membership roll had reached a total of 1781. This is so nearly approaching the looked-for 2000 mark that we take this occasion to call the roll by districts in the following manner, to wit:

	MEN	WOMEN
Head Office .....	176	71
San Francisco District ...	270	72
San Francisco Supply District .....	19	6
Alameda County District..	406	97
Chico .....	13	3
Coleman .....	19	..
Colgate .....	4	..
De Sabla .....	48	..
Drum .....	14	..
Electra .....	7	..
Fresno .....	3	..
Marin .....	41	1
Marysville .....	48	10
Napa .....	15	2
Nevada .....	26	2
Northern .....	21	2
Petaluma .....	2	..
Placer .....	52	4
Redwood .....	23	8
Sacramento .....	106	17
Sacramento Supply .....	6	..
San Joaquin .....	14	3
San Jose .....	31	2

Santa Rosa .....	12	2
Solano .....	7	4
Stanislaus .....	20	1
Tuolumne .....	24	3
Vallejo .....	27	5
Yolo .....	11	1

Totals .....	1,465	316
	316	

Grand Total .....1,781

This is surely a splendid record when we take into consideration all the obstacles that the war and the subsequent epidemic of influenza placed in the path of Chairman Roy Crossman and his assistants. Roy, however, is not the kind of committeeman to let any ordinary obstacle stand between him and the goal for which he is aiming, and we venture at this time upon the prediction that ere the association record for 1920 is brought to a close the 2000 mark will have been reached and passed.

The first death to be reported under the recently inaugurated death benefit plan was brought to the attention of the executive board when poor "Jim" Gallagher passed away. A notice in memoriam will be found elsewhere in this issue.

It is indeed a happy climax to the splendid record established by Chairman Earl Fisher that he should receive notice of his promotion to the managership of the Commercial Department.

Men and women, one and all, we voice the sentiment: "Congratulations, Earl! Keep on going!"

Nearly everyone has felt at times the pinch of straitened financial circumstances when just a little money, if it could have been secured privately and not at disastrous rates of interest that would make the borrower a slave to his creditor, would have relieved a very difficult situation. It was to meet just such trying situations in which even the most worthy and provident sometimes are placed by a series of adverse circumstances that the Pacific Service Employees Association inaugurated a Loan Plan for its members.

By an arrangement with the Morris Plan Company of San Francisco the Association becomes the sole endorser on the note of the member who wishes to secure a loan; otherwise, he would have to secure the signatures of two responsible friends. In many cases this would be a

difficult thing to do, either because of the borrower's small acquaintance among men in a position to assume such responsibility or because of reluctance on the part of the borrower to acquaint his friends with his embarrassment. The Loan Plan offers a happy solution of such a difficulty. It is easier to make known to a fellow-worker a condition of this kind than to a friend who may be a friend in only a social way.

Applications for loans, no single loan to exceed \$100; successive loans not to exceed in the aggregate \$300, should be made either verbally or by letter ad-

dressed to the Chairman of the Loan Committee, Pacific Service Employees Association, 445 Sutter Street, San Francisco.

All communications are held in strict confidence and the negotiation of a loan involves no sacrifice of self-respect. All that is required to be known is that the borrower is reliable, is a member of the Association in good standing and that the loan would deliver him from a distressing situation brought about by causes beyond his control. It would then be the pleasure of the Association to extend its help.

## *The Record of Bear Trapper Wilcoxon*



Our Mr. B. H. Wilcoxon of De Sabla district is a bear trapper of note. Any story to the contrary notwithstanding, when Mr. Wilcoxon goes after big game he gets it. The camera is a pretty reliable witness in all cases where claims of prowess are subjects of dispute, so we take great pleasure in presenting herewith a couple of illustrations which prove beyond doubt that the aforesaid Mr. Wilcoxon is worthy of place in the role of fame.

In a communication addressed to the editor of PACIFIC SERVICE MAGAZINE, Mr. Wilcoxon writes as follows:

"I am enclosing a few films of the bear we got last winter. The first we caught weighed 200 pounds. We caught two more weighing 225 pounds and 250 pounds, respectively; also two cubs weighing 75 pounds and 90 pounds each, making a total of five in all. This year we have several more spotted, and when the season opens in October, unless we have too much snow, I expect to get a few more. We have located their hiding place, or den as it may be called, and enjoyed a great deal of sport as well as some good bear steaks last winter. Of course we caught them in a steel trap, but I would like to keep that part a secret and make it appear that we had a lively chase in capturing them. Of course, they put up a good fight in the trap and dragged it

quite a way from where we set it, but they had no chance with all the bunch that was pursuing them.

"Bear had been quite numerous around here for the past four years, but none had been caught until this year,

and there was such a lot of excitement during the day of the first catch that it was necessary to close the office for part of the day."



## *Gas Men Getting Ready for Portland*

Men of the gas industry from all parts of the Pacific Coast are making preparations to attend the annual convention of the Pacific Coast Gas Association which will be held this year in Portland during the third week in September.

There are several matters of up-to-date interest which will occupy the convention in its deliberations. Last year, it will be remembered, our brethren of the gas industry met in Los Angeles, and there two matters of more than ordinary importance were taken up. One was the proposed affiliation of our Association with the American Gas Association, the parent organization whose headquarters are in the East. This affiliation was favorably considered and the consensus of opinion is that the step so taken was a wide one. Gas has come into its own of recent years. While having to compete to its advantage, perhaps, with its younger rival, electricity, for lighting purposes, it is conceded to leave that rival very far behind when it comes to a question of availability as well as efficiency as a house-heating agent and an industrial fuel. In fact, in the two last named uses gas has made enormous strides of late, so that the gas men need no longer bear the taunt so often leveled at them in the past by their electrical rivals that they were behind hand in the invention and manufacture of appliances to encourage a more diversified use of the older product.

Another matter that received general attention at Los Angeles was the proposed investigation by the California State Railroad Commission, in co-operation with representatives of the gas industry, of the much disputed B. T. U. problem. It was announced at the time that experiments conducted in England and elsewhere had tended to upset all previously established theories, and the investigation was entered upon with the idea of thoroughly testing out this problem from every conceivable standpoint. Progress will certainly be reported at the forthcoming convention, and this alone should make it worth while for every available member of our Association to undertake the trip to the Rose City.

A circular letter announcing arrangements for the convention will shortly be sent out by Secretary Henry Bostwick

from headquarters in San Francisco. In this a program of papers to be read and discussed at the convention will be given. This program as made up to date is as follows:

President's address, A. B. Day.

1. Production, Transmission and Distribution of Natural Gas, A. B. Macbeth.

2. The Use of Governors and Regulators in Gas Distribution, W. M. Henderson.

3. Advantages of Gas Fuel in the Heat Treatment of Metals, R. G. Logue.

4. Policy of the Management in the Sale of Gas, D. J. Young.

5. Oil Gas, W. S. Yard.

6. Standardization of Procedure and Records in the Service of Gas to Consumers, W. H. Barton.

7. Advertising the Gas Business, J. H. Hartog.

8. Temperature—Its Measurement and Control in the Gas Industry, S. F. Amursky.

9. Wrinkles, F. H. Bivens.

10. Experiences, John Clements.

In view of the impending advance in railroad fares, it is pleasant to be able to announce that the Southern Pacific Company has offered members of the convention special return rates of one and one-half fares, provided there is a minimum attendance of one hundred paying fare by rail on going trip of \$1 or more. We ought to see to it that at least one hundred comply with this requirement.

Mr. W. M. Kapus, of the Northwest Gas and Electric Equipment Company, is the convention's representative at Portland to take care of all hotel reservations. He has secured special rates on the European plan at the three leading hotels, the Multnomah, the Portland and the Benson.

The entertainment committee, under the leadership of Mr. Guy W. Talbot, has arranged a most attractive program, both for members and their ladies. This includes drives, golf, luncheons, a dance, the annual banquet with a sideshow for the ladies; last, but not least, an outing on the Columbia River highway, one of the scenic splendors of the United States.

Now, brethren of the P. C. G. A., get busy! Don't find reasons for not going to Portland, but see that you go whether you think you are able to or not.

F. S. M.

*The Financial Side of "Pacific Service"*

Following is condensed approximate Income Account of the Pacific Gas & Electric Company for the first six months of 1920, compared with the first six months of 1919:

	1920	1919	INCREASE	DECREASE
Gross Earnings including Miscellaneous Income.....	\$16,374,736.24	\$12,892,373.18	\$ 3,482,363.06	.....
Maintenance and Reserve for Depreciation.....	1,979,960.97	1,521,010.66	458,950.31	.....
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	9,323,484.09	6,534,155.71	2,789,328.38	.....
Total Expenses.....	\$11,303,445.06	\$ 8,055,166.37	\$ 3,248,278.69	.....
Net Income.....	5,071,291.18	4,837,206.81	234,084.37	.....
Bond and Other Interest.....	2,364,496.39	2,105,481.66	259,014.73	.....
Balance.....	\$ 2,706,794.79	\$ 2,731,725.15	\$ .....	\$ 24,930.36
Bond Discount and Expense.....	126,219.74	103,961.79	22,257.95	.....
Balance.....	\$ 2,580,575.05	\$ 2,627,763.36	.....	\$ 47,188.31
Additional Depreciation Reserve.....	500,000.00	500,000.00	.....	.....
Surplus.....	\$ 2,080,575.05	\$ 2,127,763.36	\$ .....	\$ 47,188.31
Dividends on Preferred Stock (6% rate) ..	866,432.07	749,434.27	116,997.80	.....
Balance.....	\$ 1,214,142.98	\$ 1,378,329.09	\$ .....	\$ 164,186.11
Dividends on Common Stock (5% rate) ..	850,101.45	850,101.45	.....	.....
Balance.....	\$ 364,041.53	\$ 528,227.64	\$ .....	\$ 164,186.11

The increase of \$3,482,363 in Gross Earnings is due, in about equal proportions, to the normal growth of business, and to the inclusion of the operations of the Northern California Power Company and the Sierra and San Francisco Power Company properties in the return for 1920. The gain of approximately \$1,750,000 in the normal growth of business is paralleled by a net addition of 15,723 customers to the Company's distribution systems. Both factors are indicative of the excellent business conditions in the territory served by the Company, and of the full measure of the Company's participation in the prevailing activity in commercial, industrial and other lines of productive endeavor. During this six months' period, the Company's revenues were derived from rates established in 1918. In the meantime, there were further large advances in wages and in the prices of all kinds of materials and supplies entering into the manufacture and distribution of the Company's products, with the result that these advancing costs absorbed almost the entire Gross Revenue from additional business and brought about a comparatively small decrease in Net Operating Revenue, amounting to \$24,930. After providing for bond interest and discount, the Surplus Available for Dividends shows a decrease of \$47,188, compared with the first half of last year. There still remains, after the payment of the first six months' dividends on preferred and common stock, a balance of \$364,041.

The Railroad Commission, in decisions dated June 30th and July 14th, granted rate increases in both electric and gas departments for the purpose of offsetting the great advances in costs to which the Company has been subjected. It also allowed 9% on \$9,800,000 of additional capital invested since the preceding rate determination. These increases were calculated by the Commission to aggregate approximately \$3,000,000 per annum. The new rates became effective on July 10th and July 24th, 1920, respectively, and for this reason were not reflected in the statement of earnings presented herein. It may, therefore, be reasonably anticipated that the showing for the final six months of 1920 will be materially better.

## SALES OF STOCK

Subscriptions are still being received daily from employees who are desirous of investing in the Company's First Preferred Stock. Eliminating duplications, due to the ownership of more than one class of stock by the same investor, there are now 10,506 stockholders, of whom 7,513 are residents of California. The following table shows the rapid growth in the number of security holders in the first eight months of this year.

DATE	Preferred	Common	Total*
June 3, 1914.....	1,258	1,972	2,898
December 31, 1914.....	2,729	1,946	4,128
December 31, 1915.....	5,987	2,137	7,080
December 31, 1916.....	5,959	2,314	7,614
December 31, 1917.....	6,419	2,319	8,141
December 31, 1918.....	6,411	2,322	8,242
December 31, 1919.....	7,057	2,281	8,813
August 16, 1920.....	8,469	2,545	10,506

\*Duplications due to ownership of more than one class of stock by one person eliminated.

## BUSINESS EXPANSION

In the year ended July 31, 1920, a net addition of 57,202 customers was made to the Company's distribution system. In the first seven months of this year 19,854 customers have been added compared with a net addition of 15,203 in the corresponding period last year 4,131 being added in the month of July alone. The growth of the Company's business during the past thirteen years is illustrated by the following tabulation.

## STATEMENT OF CONSUMERS BY DEPARTMENTS, AS OF JULY 31

July 31	Gas Department	Electric Department	Water Department	Steam Department	Sales Total	Increase Each Year
1907.....	111,576	48,480	5,484	.....	165,540	.....
1908.....	125,117	57,198	5,731	.....	188,046	22,506
1909.....	131,987	65,014	6,302	.....	203,303	15,257
1910.....	143,689	75,813	6,655	.....	226,157	22,854
1911.....	157,587	92,287	7,135	18	257,027	30,870
1912.....	184,913	108,075	7,858	165	301,011	43,984
1913.....	199,743	122,854	8,277	242	331,116	30,105
1914.....	212,144	139,026	8,941	305	360,416	29,300
1915.....	224,690	158,684	9,521	357	393,252	32,836
1916.....	227,215	170,871	9,938	384	408,408	15,156
1917.....	236,315	186,021	12,454	416	435,206	26,798
1918.....	248,210	201,982	13,002	448	463,642	28,436
1919.....	261,227	217,474	13,074	440	492,215	28,573
1920.....	277,278	255,512	16,203	424	549,417	57,202
Gain in 13 Years.....	165,702	207,032	10,719	424	383,877	383,877

Total number of customers served July 31, 1920.....549,417

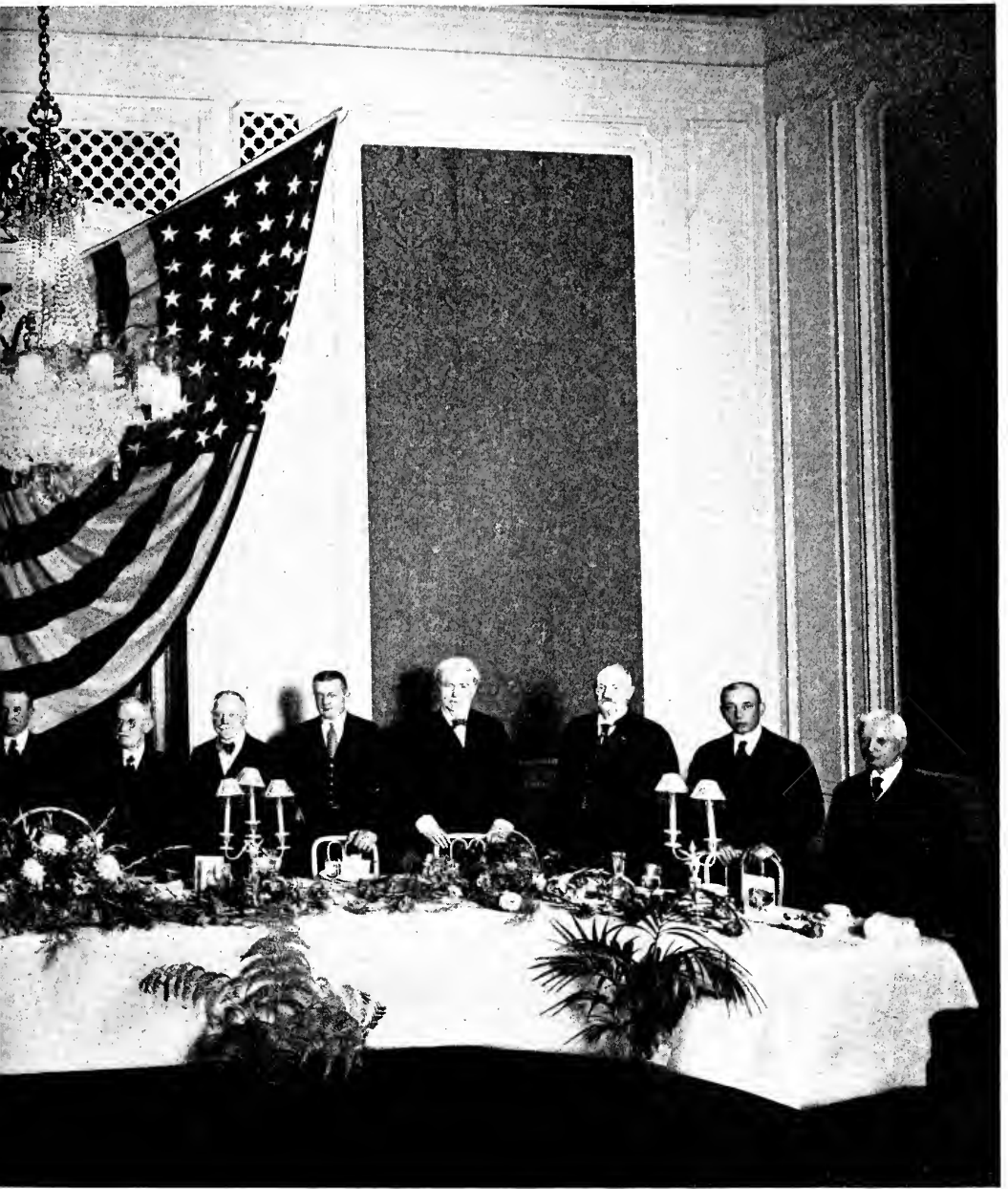




Scene at the dinner to President Wigginton E. Creed at the

This view of the head table at the dinner shows President Creed in the place of honor at the center. At his right is seen the retiring President, Mr. Frank G. Drum; at his left Vice-President and General Manager John A. Britton. Reading

from Mr. Drum the portraits shown are: Mr. C. O. G. Miller, director; Mr. Henry E. Bothin, director; Mr. D. H. Foote, secretary of the company; Mr. John D. McKee, director; Mr. Chas. L. Barrett, assistant secretary of the company; Mr. Paul



el, San Francisco, on the evening of Monday, August 2d.

M. Downing, vice-president in charge of electrical operations. Reading from Mr. Britton the portraits shown are: Mr. William H. Crocker, director; Mr. John S. Drum, director; Mr. Garret W. McEnerney, chief counsel; Mr. John A.

McCandless, director; Mr. A. F. Hockenbeamer, second vice-president and treasurer; Mr. Jos. C. Love, assistant treasurer of the company.

Department heads and district managers occupied the other tables.

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - - BUSINESS MANAGER

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PACIFIC GAS AND ELECTRIC COMPANY  
at 445 Sutter Street, San Francisco

*The Pacific Gas and Electric Company desires to serve its patrons in the best possible manner. Any consumer not satisfied with his service will confer a favor upon the management by taking the matter up with the district office.*

VOL. XII

AUGUST, 1920

No. 3

### EDITORIAL

Welcome to our "Pacific Service" family, President Creed!

In extending you the hand of cordial greeting we recognize you as one possessing an intimate knowledge of public service, its obligations and requirements. It will be our pleasure as well as our business to help make your administration an unquestionable success.

In these days of rapid progress and advancement the world looks to public utility service to guide its footsteps along the path of achievement. It must and shall be said for "Pacific Service" that its rightful place is in the front rank of the army of development.

Our attention has been called to resolutions passed at a recent meeting of the Board of Governors of the Investment Bankers' Association of America. These resolutions follow:

WHEREAS, Investment bankers are expected to purchase and distribute the securities of public utility companies which must be sold if utilities are adequately to supply the demands upon them for local transportation, light, heat, power and the transmission of messages, and

WHEREAS, The credit of many of public utility companies will not per-

mit the sale and distribution of such securities, thus interfering with the development of many commercial enterprises, the welfare of many communities and the comfort and convenience of a great many people, and

WHEREAS, The credit of the public utilities is largely dependent upon the attitude of the public as expressed through the various governing and regulatory bodies, it is hereby

Resolved by the Board of Governors of the Investment Bankers' Association of America that as steps in the restoration of the credit of the public utilities

1. Term franchises should be superseded by indeterminate permits securing the right to operate under proper regulation during good behavior with provisions for equitable adjustment of rates from time to time, as tending to eliminate controversies which inevitably impair the public service, the credit of the companies involved and the value of their securities.

2. The power of regulation and control of public utilities should be vested in State Commissions as tending towards standardization of regulation which is not possible under local regulation.

3. Members of State Commissions should be appointed.

If Commissioners are elected they are frequently embarrassed by political policies and platforms in the consideration of questions which should be decided only on sound economic and financial principles.

These resolutions afford a striking instance of the broad vision shown by the investment bankers as a class in looking upon the public utility problem in this country. Time was when what is now called a public utility, namely, a street car system, gas or electric light or water company, was organized by a few people resident in the particular locality to be covered by its operations. The initial step in the direction of finance was usually the circulation of a subscription list, the result in most cases being that when the baby was born it proved to be weak and ailing. It was ill-nurtured financially and, in consequence, gave poor service, so that even the very people responsible for its presence upon earth joined in its general condemnation. Happily, we have grown out of all that

now. The up-to-date public utility is a properly organized company, sound in every respect and whose stocks and bonds are securities in the true sense of the word. And, it may be said here that the growth of the investment bankers' industry has had a good deal to do with the growth of the public utility in the public favor.

The Investment Bankers' Association has worked out a set of tests to apply to public utility securities, which tests the Association considers should be met in order that a security may be legal for the investment of funds of savings banks and trust companies. These tests are:

1. The company must serve the public generally. The public utility who serves but a limited patronage in a community does not enjoy a satisfactory diversification of revenue.

2. The company must have an annual gross earning of at least \$500,000, any lesser amount being too small to make an attractive market.

3. If more than ten per cent of its gross earnings come from one customer, that portion must be eliminated in computing gross earnings, on the ground that wide diversification of small individual earnings makes the greater stability.

4. The company should be located in the United States.

5. The company must operate in States where public utility commissions regulate their business.

6. The company must be an operating one, for obvious reasons.

7. The obligation must comprise a direct lien upon corporate property.

The fact that these requirements are not found too rigid to be complied with is a feather in the cap of the present-day

public utility. As a matter of fact, the public utility is coming into its own with rapid strides, although here and there one hears of regulating bodies that are still following narrow policies in dealing with the utilities under their control, with the result that the net earnings of these utilities have shrunk and they have not always found it possible to borrow the necessary money for improvements.

Courses in electricity are being conducted in San Francisco and Oakland under the auspices of the University of California Extension Division. Mr. Arthur L. Jordan, head of the Science Department of the San Francisco Polytechnic High School, is in charge of the elementary courses at that point. The classes meet Tuesday and Friday evenings. Another, and more advanced course, takes in the higher problems of transmission, storage batteries, measuring instruments, etc. Both classes are now in progress. In Oakland elementary instruction in direct and alternating current is to be given by Mr. R. Roy Cowles, assistant superintendent of electric distribution, Alameda County District of "Pacific Service." Mr. Cowles' classes begin August 31st.

The price for each course of fifteen lectures has been set at \$6. Any one wishing to enroll can do so either at the extension office at 140 Kearny Street, San Francisco, or at 301 California Hall, Berkeley.

The University of California Extension Division also announces a course of lectures in practical advertising to be given by Mr. Louis Franklin Overstreet Thursday evening at 1337 Sutter Street, San Francisco. As in the case of the other courses mentioned the fee for this is \$6.



**WE ARE ANXIOUS TO SECURE  
THE FOLLOWING BACK  
NUMBERS OF THIS MAGAZINE:**

Vol. 1, No. 3—August, 1909

Vol. 5, No. 1—June, 1913

Any one having either of these numbers and who does not require them is requested to forward them to the Stationery Department

**NOTICE**

**FIRE PREVENTION DAY  
IS OCTOBER NINTH  
CLEAN UP!**

## Tidings From Territorial Districts

### Alameda County District

District Agent E. W. D'Ombra is busy moving some of his personal property from his residence; some of it under a permit from the Internal Revenue Department. The reason: D'Ombra is getting ready to take his annual vacation. Charlie Cowell, who relieved D'Ombra last year, is attempting to try it again. A. U. Brandt expects to check up high line material and other things in and around Livermore, also, during this period.

Harry Abernethy of our Berkeley office, formerly a lieutenant in the U. S. A., who spent some time in the trenches overseas and also visiting in Scotland, has in addition to his regular duties taken up the art of training animals. In commemoration of the days spent in the trenches he has named his canine "Mud." We wish Harry every success in his new enterprise.

One reads and hears much about the "Call of the West." Every year many travel to this wonderful land for health, education, pleasure and what not. Very often they become so enchanted they never return to their native States, while those who do wend their way homeward speak in endless praises of the courteous West. The East will attempt "to get even," as they say, by luring to its midst Miss Lulu Wood from our Accounting Department.

"Pacific Service" has been exceedingly fortunate in having such a faithful and conscientious employee as Miss Wood. Of all the young ladies employed by the company there is no one whose departure could cause more regret. However, as much as we regret to see Miss Wood depart, there is one consoling feature in that she has not resigned but has a leave of absence. We bid you "bon voyage," hoping you will enjoy and love New York, but only for a year. Then may the Call of the Golden West bring you back to us, and we promise faithfully to prove the adage, "Absence makes the heart grow fonder."

### A QUIET ONE

Miss Myra Cary, telephone operator, calls Miss Tripp on the phone: "The deaf and dumb man from Station B is here, will you talk to him, please?" Silence!

Miss Agnes Buckingham, who sings and swims and holds the local record for ups and downs, has long desired the adornment of a wrist watch. It was her birthday and we noted on one of her seemingly joyful upward trips that she coyly concealed a neatly wrapped package, delivered by her Uncle Samuel. Her descent from amid the clouds of anticipation and expectancy was a rapid one. Within the beautiful mahogany watch case was a pretty little wrist watch of the famous "5-10-15 F. W. Woolworth movement." A card accompanied the gift which read: "Dear Aggie—Please accept this little token as a reminder to always be on time. Never keep your hero waiting. The Bunch. P. S. Please do not wear it when in swimming." Agnes continues with her ups and downs.

Mr. Cyrus Hiester, engineer in the electrical distribution department, has just taken a vacation in order to receive the congratulations of his friends on the birth of a second boy.

Needless to say that "Cy" is a very proud father, and while he does not blush as profusely as he did on the arrival of the first boy, there is no doubt that he feels just as happy as he did on that momentous occasion.

J. E. McCaffrey, line foreman, Hayward division of the Alameda County District, has resigned from "Pacific Service" in order to accept a position in the engineering department of the Railroad Commission.

Mr. McCaffrey has been with the company for the past seven years and has formed many friends who all wish him much success in his new position. He will be with the Gas and Electric Department of the Commission on field work.

## A DOG SAVES THE LIVES OF TWO MEN

It was just an ordinary dog; the kind made up of 57 varieties. Little did Joe Minnekeli think of dogs when he went down into a street manhole at Grove and Russell Streets, Berkeley, to fix the regulator. There was an odor of escaping gas. He left Henry Lindig on the street to stand guard over the opening and protect passing machines. Joe had no more than reached the pit when he was overcome by the gas. Henry was quick to recognize the symptoms and jumped down to pull him out. But Joe is a big man, weighing some 200 pounds, and Henry missed his calculations. Henry struggled when he too began to get dazed.

Just then one of those plain little "yaller" dogs, filled with curiosity, running here and there, came trotting along. He had to investigate the open hole. The sight agitated him; he began barking excitedly, bounding back and forth. Passers by were attracted to the hole. By this time the two men were unconscious. Assistance was given and the two men were rushed to a nearby hospital. Joe and Henry have recovered. But what became of the little dog? Both Joe and Henry would like to know. How they would like to grab him up, just hug him and—. Well, perhaps the dog wouldn't know what it is all about; and particularly a plain, ordinary yaller street dog that is not accustomed to kindness. But this one certainly would get the time of his life—leave it to Joe and Henry.

SAM LEANDRO.

Cupid has been very attentive in the Berkeley office lately, judging from the list of newlyweds. Besides our June bride, Mrs. H. Anderson, the latest reports bring out the marriage of Miss Sadie Gawley, comptometer operator, to Mr. Clayton Garvey; also, Miss Violet Lar-mour, typist, to Mr. Arthur Thompson.

Miss Anne Parker, who left our employ some time ago, is now Mrs. Carroll Spencer.

Miss Anna Street drew a four months' leave of absence and is now in Honolulu. We are wondering if Cupid followed her.

On August 9 our genial assistant manager, Mr. J. H. Pape, arrived at the office with a glorious smile. Good humor is part of him but we wondered why the "glorious" until he informed us he was a proud and happy grandfather.

The family of Mr. W. F. Pape are celebrating the arrival of a nine-pound baby girl, and we can see him with a fat cigar day-dreaming of the time he will dandle the youngest Pape on his knee and endeavor to understand its cooing language.

Berkeley office recently had a very enjoyable visit from Mr. Harry Halpern and Mr. Robert L. Lukens of the Hawaiian Electric Company, Ltd., of Honolulu, who were comparing our methods of doing business with theirs.

They came to us introduced by Mr. James F. Fenwick, their assistant manager, who paid us a visit last year.

Mr. Halpern and Mr. Lukens gave us interesting information of conditions in the Hawaiian Islands.

We trust their visit to the "States" was entirely enjoyable.

## GAS STATION "B" ACTIVITIES

The "Gas House Terriers' Athletic Club" held its third meeting on Thursday, July 22. A large number were present and enjoyed a fine exhibition of the manly sports, including boxing, wrestling and hobby horses in action. There was also a little music to liven things up.

Thirteenth and Clay Streets was duly represented by Messrs. F. A. Leach, Jr., Geo. B. Furniss, Thornton Hawley and J. Chas. Jordan. Mr. Van E. Britton showed with several enthusiastic friends, who, along with the Thirteenth and Clay aggregation, were admitted as associate members. The evening ended with a double dose of hot dogs and coffee, all hands around, and an exciting game of volley ball, in which Van E. Britton's white collar took on the aspect of a dishrag. Every one thoroughly enjoyed himself and the members were encouraged by Mr. F. A. Leach, Jr., who ordered Mr. Van E. Britton to issue an "M" tag for a shower bath to be installed in the club house.

The P. G. & E. Oaks are still winning. Last Saturday they beat the Oakland Mazda four to three in an eleven inning game, making ten wins out of twelve games played. The boys are playing great ball considering that they only play Saturdays without any other practice.

Work has now started in earnest on the new generator installation at Gas Station "B." The new unit will be known as Generator No. 8.

After several months' delay, two 600,000 cu. ft. per hour centrifugal boosters have arrived at Gas Station "B." They are an addition to the present equipment at the rapidly expanding compressor station of the gas works. The boosters are now being placed on the foundations.

#### IN MEMORIAM JAMES J. GALLAGHER

It is with the most profound regret that we chronicle the sudden and unexpected death of James J. Gallagher, who was one of the oldest employees of the east bay region.

Jim had but recently returned from his annual vacation and was apparently in the best of health and spirits. He was as usual actively engaged with his work in the electric distribution department. On the morning of August 7th he had arisen particularly early to accompany his daughter, Miss Grace Gallagher, to San Francisco, where she took the 7:45 train for Eureka. On returning from San Francisco he went to the residence, where, almost without a moment's warning, he was stricken with heart failure. The blow came as a severe shock to all of Jim's many friends in the service, many of whom could scarcely be made to realize his passing.

Jim's service badge bears two diamonds. He was in the service of our company thirty-five years.

Always brusque of manner and abrupt of speech, he was nevertheless known and respected by all as a real man, upright in character, generous in his acts and charitable in his thoughts.

"Wild Bill" Kitto, gasmaker and popular first sacker of the P. G. & E. Oaks, is leaving the employ of the company to go to work in Hanlon's shipyard. Bill has made many friends at the works and they all hate to see him go.

#### BUSY SCENES AT STATIONS "A" AND "C"

Alameda County district is just the busiest in the empire of "Pacific Service" just now, and Stations "A" and "C" are the centers around which the business seems to gravitate.

Over in Station "C" there is a hole in the floor like the crater of an extinct volcano, but in due time over that hole will be placed a new 15,000 KW. turbo-generator. The back yard is full of holes, pitfalls and ditches, but in the near future boilers will occupy nearly all of that "shell hole" space. Ducts are being laid between Stations "A" and "C" to bring in the new turbine cables, also ducts for new 11 KV. feeders. New cells are being constructed in the gallery of Station "A" and new and second-hand 4 KV. feeders will move into the 11 KV. cells downstairs, formerly inhabited by the 11 KV. feeders, which will be moved to the new and more commodious cells upstairs.

One some times wonders why switches break down so frequently under a heavy load, but when we remember that they are confined in cells all their lives the wonder is that they bear up as well as they do, and it is with a view to helping them along this line that nice clean, airy cells are being constructed in the gallery of Station "A."

And at last when the new turbine No. 3 has had its final test and been put on the line, in fancy we can hear the Load Dispatcher say, "Pull up to station 'C' limit" and "No, you cannot have a turbine until after midnight." Of such is the growth of "Pacific Service."

G. ROBERTSON.

#### Sacramento District

After many days one of the "Pacific Service" men, Mr. A. E. DeLeuil, who is connected with the lamp department of Sacramento district, has received fitting recognition of service well and faithfully performed. He was one of the sincere and unselfish workers who left no stone unturned to assist in all war measures both of a public and a secret nature, especially when he could assist in aiding the land of his birth, Belgium. He was not of age nor in the physical condition to be accepted for army service, but from a mental standpoint and as a personification of loyalty, A. E. DeLeuil certainly set an example which very few, indeed, seem to have followed.

A prophet is said to be without honor in his own country, but not so in this case. Mr. DeLeuil was most agreeably surprised very recently when he received the following from the Minister of Foreign Relations of the Kingdom of Belgium:



"The Minister of Foreign Relations has the honor to inform Mr. A. E. DeLeuil of Sacramento, Cal., U. S. A., that to recognize the devotion of which he has shown proof in the works of war it has pleased the King to confer upon him by royal decree of December 22, 1919, the medal of King Albert with striped ribbon.

"PAUL HYMAN'S,

"Minister of Foreign Relations."

The medal is of bronze and is a work of art. The front shows a bust of King Albert with the words, "Albert, King of the Belgians," and on the reverse, "In Testimony of National Recognition, 1914-1918." The ribbon is purple with three vertical stripes of the national colors of Belgium. This is a very rare decoration, and, so far as is known, the only one sent to this part of the State.

Good boy, Achille, we are proud of you.

The vacation period is upon us in full swing, and the swing certainly covers some territory. At present writing we have one party on the Pit River, another in Los Angeles and others in the Yosemite, Big Trees, Kyburg, Lake Tahoe, Russian River, Santa Cruz Mountains, Santa Cruz, Pacific Beach and oh, so many of those God-given resting places which afford sanctuary for our mentally and physically exhausted cohorts and companions in arms.

Allow me to say that I do not intend to insinuate that this question of mentality and physical prowess has been occasioned from overwork in the harness of "Pacific Service" for, 'way low down, I believe it started years ago and, not to be personal, I know of several cases of hookworm, sleeping sickness and "manana" that were in existence long before de wah! Yes sah! Yes sah!

But back to vacations. It is certainly a wise provision of our company to allow this vacation period for many reasons. The first, I will say, is the assurance of fair treatment and consideration that it shows our company believes in, for there is nothing that will so stimulate a man or woman to increase endeavor in working hours and thoughts than the realization that such labor and thoughts are appreciated. Again, there is no such education as travel, and our vacation wanderers return home better and wiser people and more patriotic citizens, not to speak of their increased loyalty to "Pacific Service."

Long live the vacation period until the time comes when we can have six months twice a year, and thus be allowed sufficient time to spend all of our company pension money.

Some think that political jobs are so-called "soft jobs." In most cases they are, but a new phase of political utility is disclosed by the perusal of the following letter which escaped into the wilds of Yolo County recently:

"To the Board of Supervisors of Yolo County:

"Gentlemen:

"Will you please file the enclosed bill of \$..... for lighting the town of Broderick with the County Clerk and oblige, etc."

Broderick is dry, too. But you cannot tell how long a reserve of absorbed illuminants will retain its strength. We are going over when the illumination occurs, as we think it will be worth going miles to see.

A wee sma' bird reports that there are several important changes being made in the general headquarters. Well deserved promotions of tried and true men who have, so to speak, "risen from the ranks." We soldiers, both male and female, who are under fire in the trenches are more than pleased to hear that these promotions are from amongst our own comrades, that we did not reach afar and pluck from the allied forces the necessary talent to carry forward our wonderful work. Such acts serve as an incentive to all employees who are anxious to better themselves, who desire to achieve things. In the language of the poet:

"Then be up and be a-doing  
With a heart for any fate,  
Still achieving, still pursuing,  
Learn to labor and to wait."

Cupid has been doing things to our office force, and from general appearances he is still working overtime. Grant Pemberton, manager of the Salt Lake hippodrome, in looking over possibilities for new ingenues, discovered Hazel McAllister on the third floor front, and by use of sweet honeyed nothings convinced her that she should be his assistant manager. So the story ends. She is!

Then an electric operator by the aid of a telephone wire saw a telephone operator and the trouble began. Well, why continue this heart rending tale. She who was Irene Strehle is now Mrs. Vernon Palmer.

THE CAPTAIN.



We regret to announce the sudden demise of J. C. Kearns, operator in the Folsom power house. He was about 56 years of age, a native of St. Louis, Mo. He had been in our employ for over twenty years. A good and faithful man gone.

#### THE HOME ELECTRICAL AT SACRAMENTO

"All the comforts of a home." What a wide scope that phrase covers. What a wonderful elasticity exists in the word "comfort," also what a variation from the first home in the Garden of Eden to the modern home of the year of our Lord 1920! Again, what a variation of the degrees of comfort to be found even in our modern homes of this day!

First came the rush light, then the tallow candle, then whale oil, then kerosene, then coal gas and then the king of all, next to sunlight itself, the wonderful incandescent light brought to its present efficiency in the Edison Mazda nitrogen-filled bulb. This up-to-date illuminant is considered all that can be desired, but who knows what the future will produce?

Every housebuilder knows that he must wire his house properly that he may obtain the full use of electricity for lighting purposes. But it would seem that fully ninety-five per cent of our home builders pay no consideration to other possible uses of the electric current, and know little or nothing about the so-called lamp-socket appliances. These, too, are almost unknown to the average housekeeper, Fans, toaster, iron and one or two styles of air heaters are quite common, but when you have mentioned those few the dozens of other wonderful appliances appear to be unknown quantities. One might mention percolators, grills, sewing machine motors, the motor for kitchen purposes, such as used for the ice cream freezer, etc., the washing machine, the mangle, the dish washer, the motor for the piano player and the phonograph, the electric heating pad. Then when we consider the electric cooking range and its possibilities, the electric instantaneous and tank water heaters! But why go further. The list is unending and continues to grow hourly.

The great necessity at this time is a course of education for the public at large to a knowledge of all these wonders which are subject only to an intelligent

demand and preparation for their use. This demand will be productive of far more wonderful results than Aladdin ever dreamed that his lamp could produce. He had to carry his lamp around with him and "rub." The modern man does not have to carry anything with him. He goes fearlessly up to an inoffensive little bump on the wall, a slight pressure and behold, what? Anything he desires. This course of education is now in full swing, and above all things that interest the thrifty housekeeper is the fact that it is "free."

I have reference to the home electrical display that is now being so efficiently demonstrated on Donner Way in our city. The system of wiring and all its details are thoroughly explained by a corps of very competent demonstrators, and there is no doubt that the seed here sown will bear abundant fruit. There is a daily attendance of interested parties to an average of 500. The result of this work can fully be described as "the dreams of a dream come true."

G. B. B.

#### A "PACIFIC SERVICE" WEDDING

In one of the most artistic settings that loving fingers could create with exquisite and rare blossoms, the marriage of Miss Edwena Knapp and Spence John Dickson was solemnized yesterday afternoon at 5 o'clock, the function coming as a surprise to their host of friends.

The home of the bride's parents, Mr. and Mrs. J. E. Knapp, gave the scene of the ceremony, which was performed by Father Ryan.

The living room was transformed into a bower of greenery and blossoms. Boughs of aromatic tamarack, entwined with great sprays of the Rose of Sharon, were used about the room and to form the bridal bower, which was flanked on either side by growing maidenhair ferns. Spreading palms formed a leafy background for the whole setting.

In the dining room the pastel shades were used with charming effect. Flowering hibiscus were used here and there and on the table was a large bowl filled with phlox and penstemons.

The bride was attended by her sister, Miss Lucille Knapp, and the best man was James Knapp, her brother.

The bride was beautiful in a becoming French frock of delicate turquoise blue Georgette crepe elaborated with touches

of pink Vogue ribbon. Orchids formed her corsage bouquet.

The bridesmaid wore a fetching gown of pale pink Georgette and a corsage bouquet of Cecil Brunner roses and lilies of the valley.

The bride is the elder daughter of Mr. and Mrs. J. E. Knapp. She is a graduate of the Sacramento High School and the Chico Normal. She formerly taught at the McKinley school and is a talented musician.

Dickson is a graduate of St. Mary's College, where he took a prominent part in athletics. He is an engineer with the Pacific Gas and Electric Company with headquarters in San Francisco. He is the son of J. M. Dickson of San Francisco and Santa Rosa and is a member of one of Sonoma County's oldest families.

Mr. and Mrs. Dickson left after the ceremony for Yosemite Valley. From there they will motor to Lake Tahoe, and at the conclusion of the honeymoon will visit for a few days the groom's ranch at Rio Bonita. They will then proceed to San Francisco, where they will make their home.—*Sacramento Union*, August 1.

### ◆ Solano District

The following correspondence, dealing, as it does, with unusual conditions arising from a succession of dry winters in California, will doubtless prove of sufficient interest to our readers to warrant its publication:

Dixon, Cal., July 19, 1920.

Mr. John A. Britton,

Vice-President and General Manager.

Dear Sir—We cannot produce enough water with the Dixon water works to supply the normal demand at the present time, and as I saw this condition approaching I was worried until I evolved a scheme which is working out very nicely. As this may be of value to some of the other plants of the company I retail it to you for what it is worth.

A town ordinance compels us to keep our tanks half full for fire protection. Furthermore, if the tanks are not filled at least once a day the staves shrink with results which you can appreciate. If the tanks at the present time were on the system all the time the demand would keep them drained. We actually had this condition for a day or two when I shut off the town all except a small stream, and filled the tanks. After the tanks were

filled they were shut off and we pumped directly into the mains. With this arrangement the following condition prevails:

When the demand is less than the supply the pressure is good. When it is more the pressure drops. Throughout the day the pressure is actually better than when the tanks are connected with the mains. From 5 o'clock on until about 8, while consumers are sprinkling, or trying to sprinkle their lawns, the pressure drops, and I suppose in some cases the consumer becomes discouraged and shuts his water off. Strange to relate there has been little complaint on account of this condition.

Each night at 8 o'clock the tanks are turned on to the mains and drained about half empty. By that time the demand is less than the supply and the tanks fill up. About 6 o'clock in the morning they are shut off, and the cycle of operations is repeated. This insures fresh water in the tanks at all times.

The above scheme is safe only with centrifugal pumps. Also, the characteristics of the plant have to be such that low pressure on the mains due to heavy demands does not put undue overload on the motor.

While discussing water works, I might mention another wrinkle which I have worked out which might be of value elsewhere, and that is tightening wooden tanks which leak due to shrinkage of staves. On the Dixon tanks it is dangerous work to tighten the bands or calk stays from the outside. Furthermore, calking from the outside is not effective, as water pressure is apt to push the calking out. Emptying a tank twenty feet high and calking from the inside means ladders or stagings and at best working at a disadvantage. I therefore borrowed two thirty-gallon domestic hot water tanks from the local plumber, plugged them up, dropped them into the tank, lashed them together to form a raft. To make it stable I take a two-inch by twelve-inch plank a little less in length than the diameter of the tank and attach at one end to the two thirty-gallon tanks. I also attach a cross plank of the same cross section. This raft will easily hold two men. The long tail not only makes for stability but keeps the raft to the work.

The water is now drained to about two feet below the leak and the man starts calking cracks with oakum, moving the raft clear around the tank as the work

proceeds. The water is then raised to a convenient point and the operation repeated until the cracks are calked all the way up.

C. E. SEDGWICK.

District Manager.

Dixon, July 27, 1920.

Professor Joseph LeConte,  
University of California,  
Berkeley, Cal.

Dear Sir—I would like to get hold of a set of tables which would enable me to approximately determine the number of gallons per minute of water discharging from horizontal pipe of a nominal diameter of four inches, five inches, six inches, seven inches and eight inches. In practically all cases which I would have to deal with this pipe would be screw casing, the actual diameters of which could be obtained from manufacturer's tables. I would like to determine the flow by the distance the surface of the water is at point of discharge, below the top-most point of the inside of the pipe at discharge point. I suppose this distance would be a function of the flow. If there are no tables in existence involving this measurement I am wondering if your department could prepare a set by experiment. It would be quite valuable data to farmers and others for determining of flows approximately.

Thanking you in advance for what you can do for me along the above lines, and with best regards, I am

Yours truly,

C. E. SEDGWICK.

Berkeley, August 12, 1920.

Mr. C. E. Sedgwick,  
Pacific Gas and Electric Company,  
Solano District,  
Dixon, Cal.

Dear Sir—I have been out of town for several weeks and find your letter of July 27th awaiting me on my return.

The method of measuring water that you propose is an interesting one. I do not recall having ever seen or heard of experiments made along these lines. It is possible that a formula might be developed along theoretical lines which would give the quantity discharged as a function of the measured head, but I think the only reliable method would be to plot the results of actual trials made in the laboratory.

The discharge would depend to some extent upon the surface slope of the water backwards along the level pipe, and this

would depend upon the roughness of the interior. This surface slope would not be uniform either due to varying hydraulic radius, and therefore the discharge might be influenced by the length of pipe. Of course, I assume the horizontal pipe to be short, so that the free surface would not touch the top at the extreme rear end, in other words, air must have free access throughout. These two latter effects should be smaller, however.

I should be glad to propose a complete set of such tests as a thesis for a good bunch of senior students this year, and we can see for ourselves the limits of accuracy, and the effect if any of the length of pipe.

If you have any good problems of this kind let me know about them.

Very truly yours,

JOSEPH N. LECONTE.

### Northern District

Experiments have been conducted this year on a large scale looking to killing out of the water grass in rice fields by the use of water.

The experiment has been tried out on one tract of 2000 acres which is what is termed fifth-year land and appears to be entirely successful. It consists of flooding the land immediately after the planting of rice and keeping it continually flooded until the rice is ready for harvest, rather than following the old practice of making a first flooding and then shutting off the water until the period of germination of the rice seed.

It appears that while the rice seed will germinate under water the water grass seed requires the presence of air for germination. If this is excluded by keeping the land continually flooded the water grass seed will not germinate and thus is killed off.

The correctness of this theory seems to be very obvious on a tract where a considerable amount of water grass is to be noted on the checks, but within the checks a good stand of rice free from water grass can be found. Also it appears from present indications that this fifth-year land farmed as above is going to produce a much better rice crop this year than it did last.

The effect of this method of farming in so far as it affects our power service to this class of business will be very pronounced, as, if it is successful and generally adopted, it will mean eliminating

altogether the rotation of land at the end of the old three-year period, thereby reducing the number of plants temporarily idle and also the use of an additional number of kilowatt hours to keep the land entirely flooded through a longer period of time each season. EDW. WHALEY.

### San Francisco District

The industrial gas and heating bureau of San Francisco District reports exceptional activity in the installation of gas for heating buildings. This has been largely due to the fact that coal and oil are steadily increasing in price while gas has made a comparatively slight advance.

Consumers are beginning to realize that in the last few years solid fuels have increased from 100 to 150 per cent in price while gas has only advanced a small fraction of that amount. There is no question that public sentiment is being remoulded in favor of gas as an economical fuel for house heating, with the result that at the present time more installations are being made even in the summer months than has been the case at any time in the local history of the gas industry. Perhaps this is due somewhat to the improvements in gas heating equipment.

The San Francisco District of the company has developed a gas furnace to supply heated air to homes which is controlled by a time clock and thermostat. The time clock lights the furnace in the morning and the thermostat maintains the heat within a few degrees of the proper point throughout the day, with the result that the house is always at the proper temperature and at no time is wasting fuel in over-heating as is invariably the case with solid fuels. The convenience of such an arrangement, doing away with practically all of the usual heat troubles, is also a great factor.

Another appliance which is new has been adopted by the San Francisco District, and that is the steam boiler for house-heating work. This is a small sectional boiler of high efficiency which supplies steam for steam radiators. This boiler is also controlled by automatic device so that it needs practically no attention.

Installations of this kind have been made in San Francisco for some of the most prominent concerns in the city and in some of the finest homes, and it is a matter of great satisfaction to those interested in this work to note that the

consumers are entirely satisfied as regards both satisfactory operation and the monthly gas bills.

These appliances supplement the already well known Rector system of heating and are applicable to many installations for which the efficient Rector system is not adapted.

A complete exhibit of the modern house-heating equipment has been established for the benefit of consumers in room 503 at 445 Sutter Street, where they may be examined and where an attendant will be most pleased to demonstrate them to those who call.

H. M. CRAWFORD.

Andy MacDonald, statement taker, was seriously injured during the latter part of July. While reading meters on Kearny Street, near Jackson, MacDonald slipped and fell, breaking three ribs and the bones in his left hand.

Reg Wilson, for the past year transplanted to the precincts of the University of Southern California, is back in the bookkeeping department for his vacation. If "Reg" had remained in the south perhaps the recent series of earthquakes would have been explained.

Miss Edythe Leavey sailed from San Francisco, August 20th, on board the Hind-Rolph steamer Tofua for a six months' trip to New Zealand.

Miss Lena Wempe leaves the employ of the company on August 31st. Miss Wempe carries with her the best wishes of her fellow employees and the warm personal regard of all who came in contact with her.

Mrs. Ida Gibney is now lending weight and dignity to the transfer crew of the bookkeeping department.

Harry Lemos has been very secretive concerning his vacation travels, but even the most skillful follower of Hawkshaw, Lecoq and William J. Burns cannot forever conceal his traces. Now we have the truth. For two solid weeks Harry visited every theatrical booking agency and vaudeville circuit in San Francisco and Los Angeles searching for a young lady with bobbed hair featuring in a child impersonation act. Other items concerning Harry will probably follow.

## **H-E—the SYMBOL of SOUND INVESTMENT**

**T**EST them as you may, California hydro-electric securities of established corporations meet every requirement demanded by the conservative investor.

Their increasing distribution among exacting investors throughout the United States is responsible for the coining of the phrase: "California H-E."

You will hear it more and more as its investment significance becomes universally known. California hydro-electric securities are acknowledged among the safest and highest yielding in this country.

They are backed by the boundless natural resources of the Far West. They

### **YIELD**

**6.50 to 7.70 per cent**

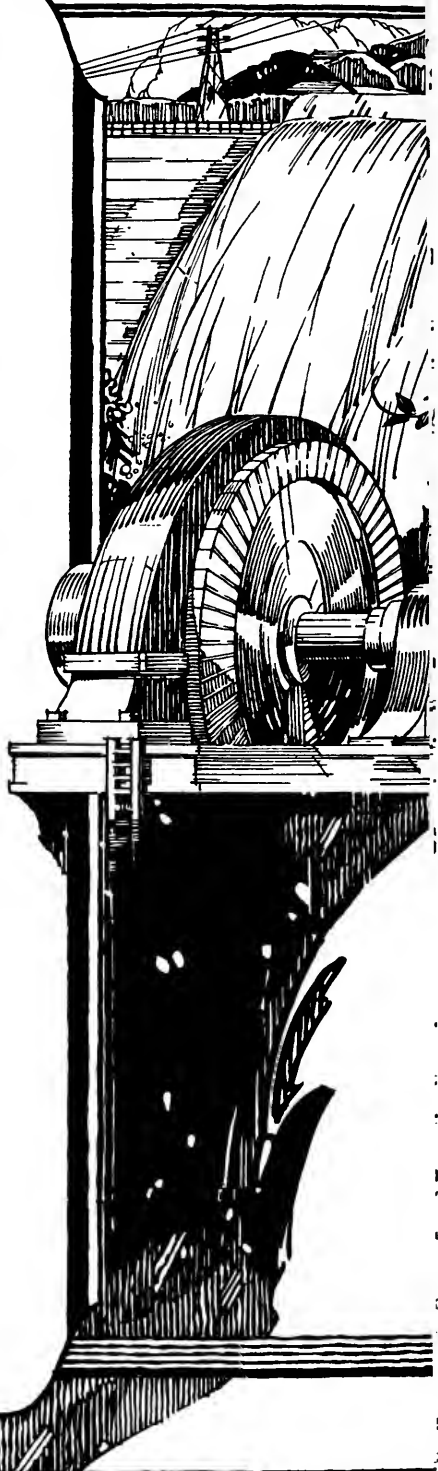
Blyth, Witter & Company is allied financially with the leading hydro-electric corporations in California through activities as fiscal agents in development.

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GAS FUEL DOES NOT REQUIRE STORAGE SPACE

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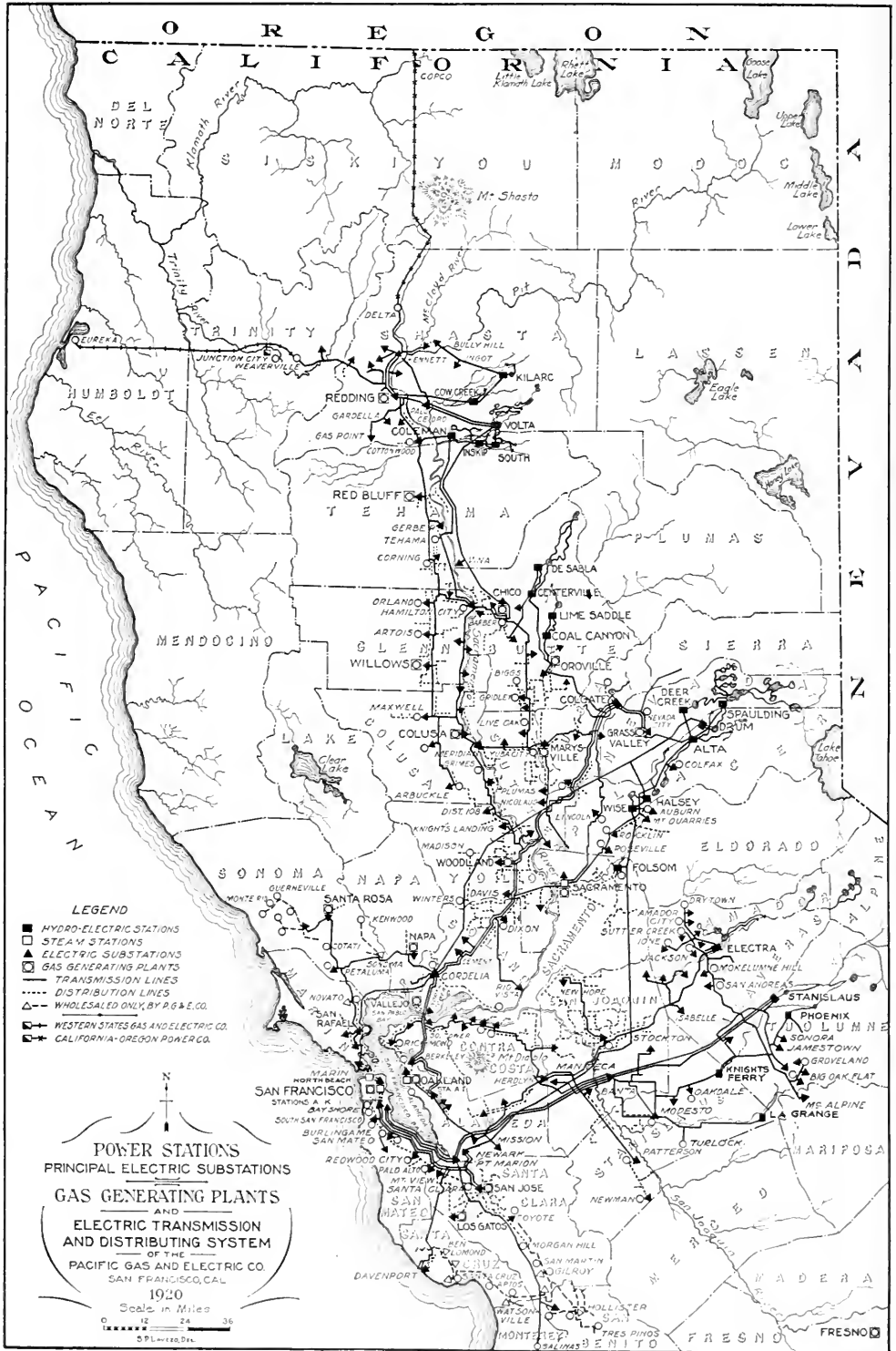
LOS ANGELES

## The Pacific Telephone and Telegraph Company

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GOOD SERVICE AT FAIR RATES



## Pacific Gas and Electric Company Furnishes

**"PACIFIC SERVICE"**

TO OVER 545,000 CONSUMERS OF

**GAS • ELECTRICITY • WATER • STREET RAILWAY**

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>1</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	350
<sup>2</sup> Albany.....	2,300	<sup>2</sup> Emeryville.....	3,000	<sup>1</sup> Mission San Jose.....	500
<sup>1</sup> Alvarado.....	700	<sup>1</sup> Escalon.....	500	<sup>1</sup> Modesto.....	14,000
<sup>1</sup> Alviso.....	550	<sup>1</sup> Esparto.....	250	<sup>1</sup> Mokelumne Hill.....	300
<sup>1</sup> Amador City.....	1,100	<sup>1</sup> Fairfax.....	250	<sup>1</sup> Monterey.....	6,500
<sup>1</sup> Anderson.....	800	<sup>1</sup> Fairfield.....	1,000	<sup>1</sup> Morgan Hill.....	750
<sup>1</sup> Angel Island.....	280	<sup>1</sup> Fair Oaks.....	300	<sup>1</sup> Mountain View.....	2,500
<sup>1</sup> Antioch.....	2,000	<sup>1</sup> Fall River Mill.....	500	<sup>1</sup> Mt. Eden.....	210
<sup>1</sup> Aptos.....	300	<sup>1</sup> Farmington.....	400	<sup>1</sup> Napa.....	6,500
<sup>1</sup> Arbuckle.....	700	<sup>1</sup> Felton.....	300	<sup>1</sup> Nevada City.....	2,900
<sup>1</sup> Atherton.....	250	<sup>1</sup> Folsom.....	2,000	<sup>1</sup> Newark.....	505
<sup>1</sup> Auburn.....	2,800	<sup>1</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950
<sup>1</sup> Barber.....	500	<sup>1</sup> Fresno.....	48,867	<sup>1</sup> Newman.....	1,200
<sup>1</sup> Belmont.....	375	<sup>1</sup> Gilroy.....	2,900	<sup>1</sup> Niles.....	1,000
<sup>1</sup> Belvedere.....	550	<sup>1</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400
<sup>1</sup> Benicia.....	2,400	<sup>1</sup> Gonzales.....	650	<sup>1</sup> Oakdale.....	2,100
<sup>1</sup> Ben Lomond.....	800	<sup>1</sup> Grass Valley.....	1,800	<sup>1</sup> Oakland.....	225,000
<sup>1</sup> Berkeley.....	65,000	<sup>1</sup> Gridley.....	1,800	<sup>1</sup> Oakley.....	200
<sup>1</sup> Biggs.....	500	<sup>1</sup> Grimes.....	350	<sup>1</sup> Occidental.....	600
<sup>1</sup> Bolinas.....	200	<sup>1</sup> Groveland.....	250	<sup>1</sup> Orland.....	836
<sup>1</sup> Brentwood.....	500	<sup>1</sup> Guerneville.....	780	<sup>1</sup> Oroville.....	5,000
<sup>1</sup> Broderick.....	600	<sup>1</sup> Hamilton City.....	200	<sup>1</sup> Pacheco.....	250
<sup>1</sup> Burlingame.....	4,000	<sup>1</sup> Hammononton.....	500	<sup>1</sup> Pacific Grove.....	2,000
<sup>1</sup> Byron.....	450	<sup>1</sup> Hayward.....	4,000	<sup>1</sup> Palo Alto.....	6,000
<sup>1</sup> Campbell.....	700	<sup>1</sup> Hillborough.....	950	<sup>1</sup> Paradise.....	500
<sup>1</sup> Capitola.....	275	<sup>1</sup> Hollister.....	2,500	<sup>1</sup> Patterson.....	500
<sup>1</sup> Carmel.....	600	<sup>1</sup> Jone.....	1,000	<sup>1</sup> Penn Grove.....	300
<sup>1</sup> Cement.....	1,000	<sup>1</sup> Irvington.....	800	<sup>1</sup> Penryn.....	250
<sup>1</sup> Centerville.....	850	<sup>1</sup> Jackson.....	2,100	<sup>1</sup> Perkins.....	250
<sup>1</sup> Ceres.....	250	<sup>1</sup> Jamestown.....	600	<sup>1</sup> Petaluma.....	750
<sup>1</sup> Chico.....	15,000	<sup>1</sup> Kennett.....	1,200	<sup>1</sup> Piedmont.....	3,500
<sup>1</sup> Colfax.....	500	<sup>1</sup> Kentfield.....	500	<sup>1</sup> Pike City.....	200
<sup>1</sup> College City.....	325	<sup>1</sup> Kenwood.....	200	<sup>1</sup> Pinole.....	1,800
<sup>1</sup> Colma.....	1,800	<sup>1</sup> Keswick.....	1,800	<sup>1</sup> Pittsburg.....	6,000
<sup>1</sup> Columbia.....	250	<sup>1</sup> King City.....	1,500	<sup>1</sup> Pleasanton.....	1,500
<sup>1</sup> Colusa.....	2,000	<sup>1</sup> Knights Ferry.....	250	<sup>1</sup> Port Costa.....	1,000
<sup>1</sup> Concord.....	850	<sup>1</sup> Knights Land.....	400	<sup>1</sup> Princeton.....	300
<sup>1</sup> Coram.....	666	<sup>1</sup> La Grange.....	260	<sup>1</sup> Red Bluff.....	3,530
<sup>1</sup> Cordelia.....	300	<sup>1</sup> Larkspur.....	2,000	<sup>1</sup> Redding.....	3,572
<sup>1</sup> Corning.....	972	<sup>1</sup> Lewiston.....	200	<sup>1</sup> Redwood City.....	4,200
<sup>1</sup> Corte Madera.....	350	<sup>1</sup> Lincoln.....	1,500	<sup>1</sup> Richmond.....	16,500
<sup>1</sup> Cotati.....	200	<sup>1</sup> Live Oak.....	300	<sup>1</sup> Rio Vista.....	1,000
<sup>1</sup> Cottonwood.....	400	<sup>1</sup> Livermore.....	2,500	<sup>1</sup> Ripon.....	300
<sup>1</sup> Coyote.....	200	<sup>1</sup> Lomita Park.....	450	<sup>1</sup> Riverbank.....	400
<sup>1</sup> Crockett.....	3,000	<sup>1</sup> Loomis.....	450	<sup>1</sup> Rocklin.....	900
<sup>1</sup> Crow's Landing.....	300	<sup>1</sup> Los Altos.....	500	<sup>1</sup> Rodeo.....	300
<sup>1</sup> Daly City.....	5,500	<sup>1</sup> Los Gatos.....	3,000	<sup>1</sup> Roseville.....	4,200
<sup>1</sup> Danville.....	400	<sup>1</sup> Los Molinos.....	200	<sup>1</sup> Ross.....	900
<sup>1</sup> Davenport.....	300	<sup>1</sup> Madison.....	250	<sup>1</sup> Sacramento.....	76,000
<sup>1</sup> Davis.....	1,700	<sup>1</sup> Manteca.....	2,500	<sup>1</sup> Salinas.....	5,500
<sup>1</sup> Decoto.....	300	<sup>1</sup> Mare Island.....	500	<sup>1</sup> San Andreas.....	750
<sup>1</sup> Del Monte.....	300	<sup>1</sup> Martinez.....	3,500	<sup>1</sup> San Anselmo.....	3,000
<sup>1</sup> Denair.....	200	<sup>1</sup> Marysville.....	6,000	<sup>1</sup> San Bruno.....	1,500
<sup>1</sup> Dixon.....	1,200	<sup>1</sup> Maxwell.....	480	<sup>1</sup> San Francisco.....	580,000
<sup>1</sup> Drytown.....	225	<sup>1</sup> Mayfield.....	1,100	<sup>1</sup> San Jose.....	45,000
<sup>1</sup> Duncan's Mills.....	200	<sup>1</sup> Menlo Park.....	1,100	<sup>1</sup> San Juan.....	550
<sup>1</sup> Durham.....	300	<sup>1</sup> Meridian.....	225	<sup>1</sup> San Leandro.....	5,000
<sup>1</sup> Dutch Flat.....	750	<sup>1</sup> Millbrae.....	300	<sup>1</sup> San Lorenzo.....	400
<sup>1</sup> Eldridge.....	500	<sup>1</sup> Mills.....	350	<sup>1</sup> San Martin.....	200
<sup>1</sup> El Cerrito.....	1,200	<sup>1</sup> Mill Valley.....	3,200	<sup>1</sup> San Mateo.....	6,000
<sup>1</sup> Elmira.....	350				

<sup>1</sup> San Pablo.....	500	<sup>1</sup> Stockton.....	42,000
<sup>1</sup> San Quentin.....	2,500	<sup>1</sup> Suisun.....	800
<sup>1</sup> San Rafael.....	6,000	<sup>1</sup> Sunol.....	340
<sup>1</sup> Santa Clara.....	6,000	<sup>1</sup> Sunnyvale.....	1,650
<sup>1</sup> Santa Cruz.....	13,600	<sup>1</sup> Sutter City.....	250
<sup>1</sup> Santa Rosa.....	11,000	<sup>1</sup> Sutter Creek.....	1,300
<sup>1</sup> Saratoga.....	300	<sup>1</sup> Tehama City.....	221
<sup>1</sup> Sausalito.....	3,000	<sup>1</sup> Tiburon.....	350
<sup>1</sup> Sebastopol.....	1,950	<sup>1</sup> Tracy.....	2,000
<sup>1</sup> Shasta.....	500	<sup>1</sup> Tres Pinos.....	800
<sup>1</sup> Shellyville.....	200	<sup>1</sup> Tuolumne.....	1,000
<sup>1</sup> Sheridan.....	250	<sup>1</sup> Turlock.....	4,500
<sup>1</sup> Smartsville.....	300	<sup>1</sup> Vacaville.....	1,250
<sup>1</sup> Soledad.....	600	<sup>1</sup> Vallejo.....	15,500
<sup>1</sup> Soquel.....	400	<sup>1</sup> Vina.....	300
<sup>1</sup> Sonoma.....	1,290	<sup>1</sup> Vineburg.....	200
<sup>1</sup> Sonoma.....	3,000	<sup>1</sup> Walnut Creek.....	500
<sup>1</sup> Southern San.....	3,750	<sup>1</sup> Warm Springs.....	200
<sup>1</sup> Standard.....	300	<sup>1</sup> Waterford.....	300
<sup>1</sup> Stanford Uni.....	2,600	<sup>1</sup> Watsonville.....	6,000
<sup>1</sup> Stockton.....	42,000	<sup>1</sup> Wheatland.....	500
<sup>1</sup> Suisun.....	800	<sup>1</sup> Williams.....	625
<sup>1</sup> Sunol.....	340	<sup>1</sup> Willows.....	1,139
<sup>1</sup> Sunnyvale.....	1,650	<sup>1</sup> Winters.....	1,200
<sup>1</sup> Sutter City.....	250	<sup>1</sup> Woodland.....	5,000
<sup>1</sup> Sutter Creek.....	1,300	<sup>1</sup> Woodside.....	225
<sup>1</sup> Tehama City.....	221	<sup>1</sup> Yolo.....	350
<sup>1</sup> Tiburon.....	350	<sup>1</sup> Yuba City.....	1,750
<sup>1</sup> Tracy.....	2,000		
<sup>1</sup> Tres Pinos.....	800		
<sup>1</sup> Tuolumne.....	1,000		
<sup>1</sup> Turlock.....	4,500		
<sup>1</sup> Vacaville.....	1,250		
<sup>1</sup> Vallejo.....	15,500		
<sup>1</sup> Vina.....	300		
<sup>1</sup> Vineburg.....	200		
<sup>1</sup> Walnut Creek.....	500		
<sup>1</sup> Warm Springs.....	200		
<sup>1</sup> Waterford.....	300		
<sup>1</sup> Watsonville.....	6,000		
<sup>1</sup> Wheatland.....	500		
<sup>1</sup> Williams.....	625		
<sup>1</sup> Willows.....	1,139		
<sup>1</sup> Winters.....	1,200		
<sup>1</sup> Woodland.....	5,000		
<sup>1</sup> Woodside.....	225		
<sup>1</sup> Yolo.....	350		
<sup>1</sup> Yuba City.....	1,750		

Total Cities and Towns.....	1,494,598
Add Suburban Population.....	414,687
Total Population Served.....	1,909,285

Unmarked—Electricity only.

<sup>1</sup>—Gas only.<sup>2</sup>—Gas and Electricity.<sup>1</sup>—Gas, Electricity and Water.<sup>2</sup>—Gas, Elect. and St. Railways.<sup>3</sup>—Electricity and Water.<sup>4</sup>—Electricity supplied through other companies.<sup>5</sup>—Gas supplied through other companies.<sup>6</sup>—Water supplied through other companies.**"PACIFIC SERVICE" FACTS:**

Number of Electric Consumers.....253,183

Number of Gas Consumers.....275,516

Number of Water Consumers.....16,159

Number of Steam Consumers.....428

Total number of consumers.....545,286

Operates 19 Hydro-Electric Power Plants.

Operates 3 Steam-Electric Power Plants.

Operates 20 Gas Plants.





# SUNNY CALIFORNIA

The attractive climate of California, with its wonderful flowers and tropical fruit groves brings thousands of travelers to the shores of the Pacific.

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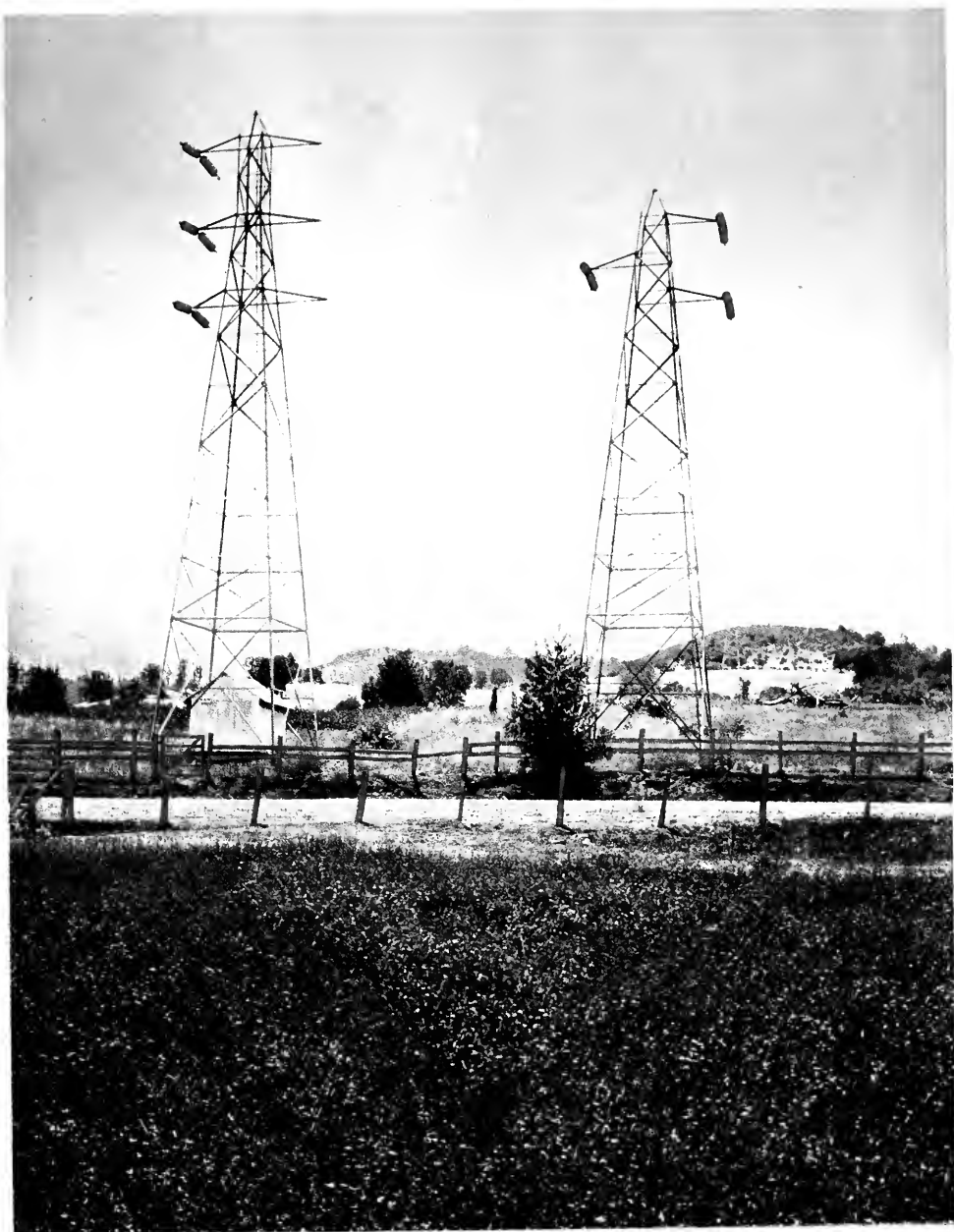
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NATIONAL CITY BANK BUILDING, NEW YORK  
*Offices in more than 50 Cities.*

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# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



"PACIFIC SERVICE" ON ITS WAY ACROSS COUNTRY FROM STANISLAUS POWER HOUSE

Vol.  
12

SEPTEMBER 1920

No.  
4

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COLGATE	Colgate	MILES WERRY
DE SABLE	De Sable	I. B. ADAMS
ELECTRA	Electra	W. E. ESKEW
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YOLO	Woodland	J. W. COONS

# Pacific Service Magazine

Volume XII



Number 4

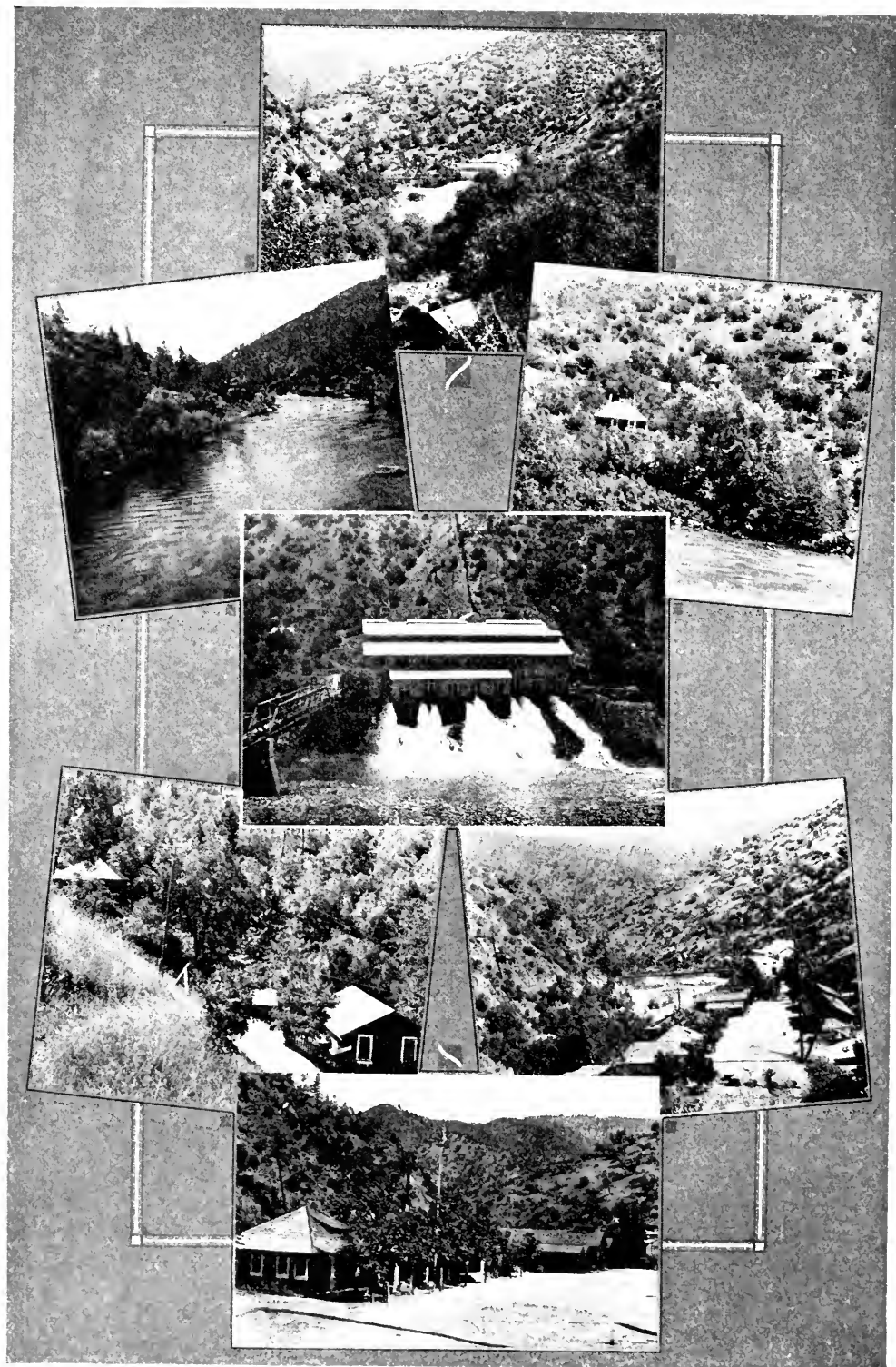
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Views of Stanislaus power plant, located in the Stanislaus River Canyon, about 25 miles north of Sonora. This is the main hydro-electric station of what is now the Sierra system of "Pacific Service."

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Volume XII SEPTEMBER, 1920 Number 4

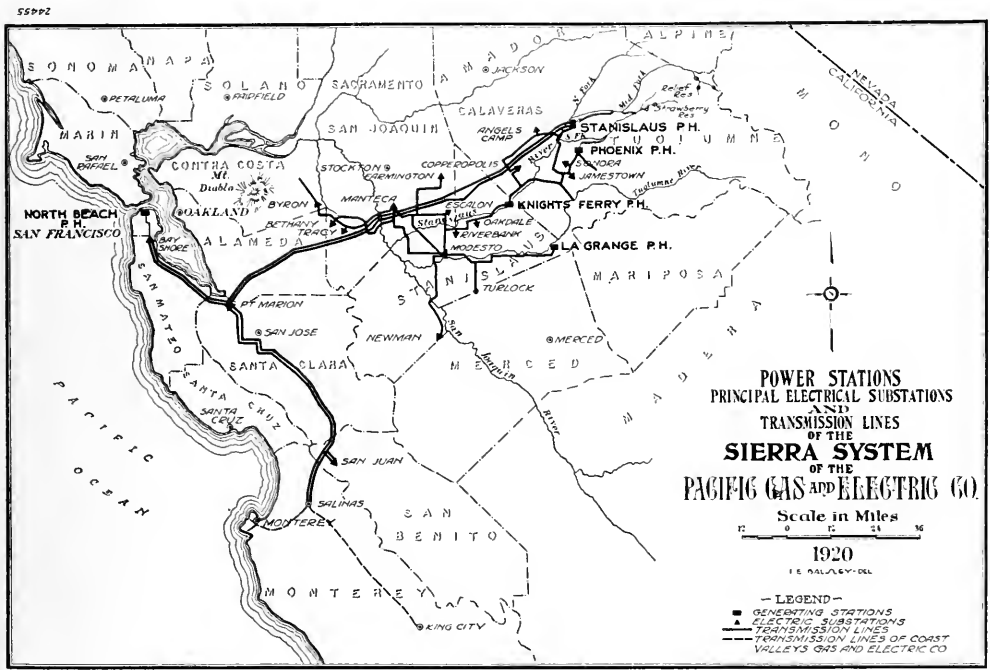
## The Sierra Power System and the Part It Plays in "Pacific Service"

By FREDERICK S. MYRTLE

IN DECEMBER last public announcement was made that our company, with the official permission of the California State Railroad Commission, had leased for a term of fifteen years the operating properties of the Sierra and San Francisco Power Company, a public utility best known to the lay public of California from the fact that since its organization it had supplied the motive power for the operation of the United Railroads of San

Francisco. The properties thus taken over were described at the time to include:

A large hydro-electric plant on the middle fork of the Stanislaus River in Tuolumne County of 53,000 horsepower capacity, and smaller hydro-electric plants in Tuolumne and Stanislaus Counties; a 104,000-volt transmission line from the Stanislaus power house through the counties of Tuolumne, Calaveras,



Stanislaus, San Joaquin, Alameda, Santa Clara and San Mateo to San Francisco; high-tension substations in San Mateo, San Joaquin and Santa Clara Counties, respectively; a 60,000-volt transmission

tem. It seems fitting, then, that a sketch of what is now called the Sierra System of "Pacific Service" should be given our readers in order to acquaint them with the lay of the land, so to speak.



Relief Reservoir, 7200 feet above sea level, near the summit of the Sierra Nevada Mountains on the Mono highway.

line from Port Marion in Santa Clara County south as far as Salinas in Monterey County; a 30,000-volt transmission line from the power house at La Grange, on the Tuolumne River east of Modesto, to the cities of Modesto, Turlock and other cities and towns in Stanislaus County; a steam electric plant in the city of San Francisco, with 11,000-volt distributing lines connecting that plant with the Bay Shore substation on San Francisco Bay, where the 104,000-volt lines from Stanislaus terminate their cross country journey, and supplying several substations in the city of San Francisco.

Since our company's acquisition of these properties considerable work in the way of additions and betterments have been planned, and at the present time important work is in process which, when completed, will materially add to the hydro-electric resources of the sys-

The section of California over which the Sierra system spreads has a charm apart from its development characteristics in the part it played in early days in making California history. It is the region of Bret Harte, the region of Table Mountain, of Truthful James, of Calaveras and Angels. Just out of Oakdale the old-fashioned dwelling where Bret Harte is said to have composed many of his soul stirring poems and romances still stands an object of more or less attention to the traveler upon the highway that runs past its door. It may be said that when leaving Oakdale for the higher levels of Tuolumne and Calaveras Counties one turns one's back upon the world of today and belongs to another era, as it were, passing through scenes familiar by name and by the experience of reading if not of actual participation. For, the way from Oakdale lies through





Falls of Relief Creek below Relief Reservoir.

Knights Ferry, Chinese Camp and Jamestown (the "Jimtown" of Mark Twain) to Sonora, where our company's district headquarters are located, and all around Sonora are yet more historical places, such as Columbia, Tuolumne, Angels and various communities of lesser interest.

I feel I must not dwell upon ancient history in this article, for I have in contemplation another and separate article in which the historical features of this famous section of a famous State may be dwelt with in proper leisurely fashion.

At the present time, when all California is crying for power

the hydro-electric system which our company has acquired through this lease and whose potential further development our company intends to accomplish is worthy of present attention. Before describing the Stanislaus and subsidiary power plants we will strike to the heart of the system by traveling from Sonora in an easterly direction to where the Stanislaus National Forest stretches its length and breadth to the borders of Alpine County. Here lie the watersheds supplying the Stanislaus system of "Pacific Service." The farthest away is Relief Reservoir, some 60 miles by road from Sonora and nestling among the rocky peaks within ten miles of the summit of the Sierra Nevada Mountains, that summit which is crossed by the Sonora Pass on the old Mono highway.

Relief Reservoir takes its water from Relief Creek, a tributary of the Stanislaus River, which rises in Kennedy Lake, a natural body of water some eight miles above. The reservoir has a capacity of 650,000,000 cubic feet and holds its own against all sorts of climatic conditions. It owes its name to an incident of early days when a relief party journeyed out from Sonora to the rescue of an emigrant train that got lost in the wilds of the Sierra summit. The remains of old wagons and other paraphernalia belonging to that train yet mark the spot. It is a well constructed reservoir and for years its destinies have been guided by one "Shorty" Harris, an employee of the



The Dardanelles, seen from the Mono Highway, between Strawberry and Relief. The Stanislaus River Canyon lies below.



old Sierra Company who not only helped to build the dam at Relief but is believed to have inhabited that region for ages before. He lives at the lake, proud of his lonesome glory—lone-

some indeed, for to get there you must leave the highway and tramp a very long mile and half over a very rough trail. Once there, however, you are rewarded for your pains, for the reservoir is extremely picturesque, perched, as it is, some 7200 feet up in the air.

The water from Relief flows back into the creek and so on into the middle fork of the Stanislaus River, where it is picked up at Sand Bar dam and conveyed sixteen miles by flume to Stanislaus forebay reservoir, whence it is dropped 1500 feet through two steel penstocks to the power station on the river below.

Thirty miles by road below Relief is the well known Strawberry reservoir, well known because of the fact that it is a popular resort for summer vacationists. There is a capable hotel there and several private residences



Upper Relief Valley, above Relief Reservoir.

are scattered around the shores of the lake. This reservoir's capacity is 780,000,000 cubic feet and it is an imposing body of water at all times of the year. It lies 5400 feet above

sea level on the south fork of the Stanislaus River and the water flowing in at one end escapes at the other into the Stanislaus River again whence it travels through the settlement of Strawberry below the lake to a point three miles farther on, where some of it is picked up by what is known as the Philadelphia ditch, which carries it over the divide and drops it into the middle fork of the Stanislaus to afford additional kilowatt hours to the power system of that name. The balance of the water is carried on down the south fork some fifteen miles to Lyons reservoir, whence it is carried by ditch another fifteen miles and dropped 1000 feet into the Phoenix power house, where



Kennedy Lake, headwaters of the Stanislaus River, eight miles above Relief Reservoir.



Kennedy's Meadows, proposed reservoir site, one mile below Relief dam.

there is a generating capacity of 2500 horsepower. Escaping from there the water is picked up again and carried three



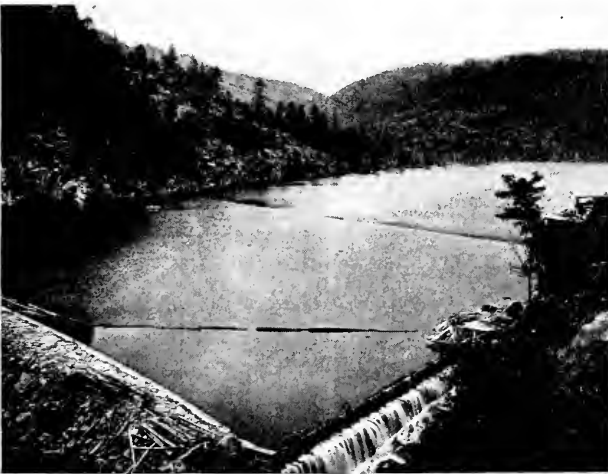
View of Lake Strawberry from the far shore opposite the dam.

miles to Phoenix reservoir, a picturesque stretch of water of about 53,000,000 cubic feet capacity occupying an elevation five miles northeast of Sonora. From Phoenix reservoir the Sonora, Jamestown and Columbia districts, respectively, are supplied with water for irrigation and mining as well as domestic purposes.

The Tuolumne water system includes numerous smaller reservoirs and a network of ditches; however, the main

Stanislaus power house, which lies upon a bend of the Stanislaus River about twenty-five miles north of Sonora. Four miles out from the county seat lies Columbia, once a lively and prosperous mining town, where dwelt 40,000 souls all more or less concerned in the mad rush for gold. It is said of Columbia that it once came near being the capital of the State of California, and that within a radius of one mile no less than \$80,000,000 of the precious metal was taken out of

the ground in those olden, golden days. It is now practically a deserted village of about 200 population. From Columbia the way lies across the higher



Dam and spillway at Lake Strawberry.

sources of supply are as I have described.

The central feature of the system is, of course, the great



Rock facing of Strawberry dam, downstream side.



Intake of Philadelphia ditch on south fork Stanislaus River below Strawberry dam.

levels for some distance and then winds down the steep canyon of the Stanislaus, crossing the river at Parrot's Ferry bridge over to the Calaveras side, and winding up again to a point near Vallecita where the private right-of-way of the company is entered and a new descent is made to the river, which is crossed again at the approach to the power house.

The Stanislaus power house lies about nine miles by river above Parrot's Ferry. Its location is picturesque to a degree, and is a favorite spot for summer excursions. The building is a commodious, corrugated iron and steel frame structure, completed in 1908. Its electric generating equipment consists of four 8500 - kilowatt machines, which grind



South fork Stanislaus River, three-quarters of a mile below Strawberry dam.



Rapids on middle fork Stanislaus River. 500 feet above Spring Gap power house site.

out electricity at 4000 volts. This voltage is stepped up by the transformers to 104,000 for transmission across country to the shores of San Francisco Bay. There are two tower lines, one single circuit and one double circuit, and their way lies west through Angels and Copperopolis to the main distributing substation of the system at Manteca at the north end of the San Joaquin Valley.

Thence the way lies through Tracy and Livermore to Port Marion, a station at the south end of the San Francisco Bay, whence the main lines travel up the San Francisco peninsula to the Bay Shore sub-

station. A branch transmission line runs from Port Marion southward to Salinas, a distance of 73 miles. There is, also, a 17,000-volt pole line which carries "juice" from the Stanislaus power plant south through Sonora and Groveland and distributes energy over the entire Tuolumne territory. This line ties in with the Hetch-Hetchy system at Priest substation near Early Intake powerhouse.

There is a comfortable and

well-equipped camp at Stanislaus, including cottages, dining hall, a club-house and an ice plant. Mr. W. P. Bedgood is superintendent at the plant and gives hearty welcome to all visitors. They have some worth while entertainments there from time to time. One of particularly refreshing memory was held the 19th of last June. This was attended by several members of our "Pacific Service" family and was in the nature of a sort of welcome to the new condition of things. Boys and girls came over from Sonora and altogether the attendance numbered 56 couples. There is a spacious dance hall on the brink of the river which measures 30 by 50 feet. A most enjoyable time was had by all.

At the back of the plant on the Calaveras side of the canyon a cable tramway travels up the 1500-foot slope to the fore-bay reservoir at the top. From the reservoir a flume follows the turns and twists of the middle fork of the Stanislaus River a distance of sixteen miles to Sand Bar dam, where connection is made with the water system previously described. A 36-inch gauge electric railroad on top of the flume provides ample transportation.



View on middle fork Stanislaus River. Power house site to right.

The town of Sonora, where the district headquarters are located, is typical of that section of the country. It is old-fashioned and replete with buildings of the gold days. The company's office looks as if it had been lifted out of a picture of old Mexico. It is of that type. Here our Tuolumne district superintendent, Mr. C. R. Gill, presides over the destinies of "Pacific Service" and its consumers, with the assistance of capable office and outside help.

Improvements are in process which, when completed, will materially add to the electric generating and distributing resources of this section of the "Pacific Service" system. At Stanislaus power plant an additional pressure pipe line is being installed which, it is expected, will reduce friction losses considerably and increase the installed plant capacity from 34,000 to 40,000 kilowatts. More important even than this is the construction of what is known as the Spring Gap project of the Sierra system. Reference has already been made to the Philadelphia ditch, which diverts the water from the south fork of the Stanislaus River be-

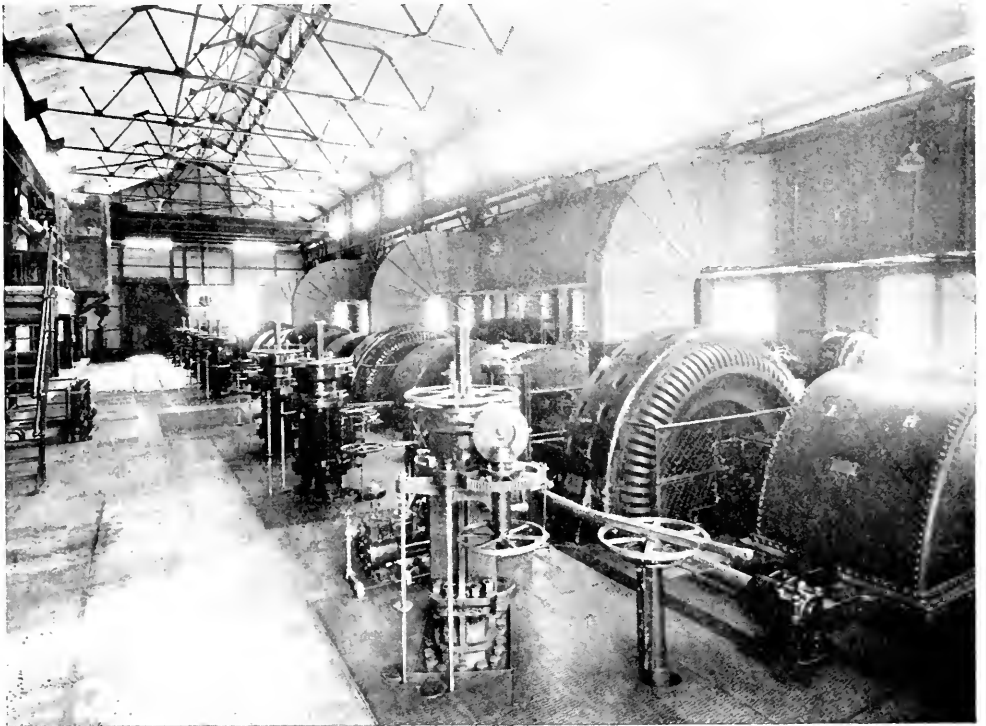


Phoenix power house, fed by water from Lyons Reservoir.

low Strawberry and conducts it across the ridge which separates the south fork from the middle fork to a point where it is poured into the middle fork to feed the Stanislaus power-house. At the point of contact is Spring Gap and it is near Spring Gap that it is proposed to take advantage of a fall of 1855 feet for the purpose of generating some 5700 kilowatts of electric energy. A penstock 7100 feet in length will be installed at the point of contact and shoot water down into

River over to the middle fork during the short water period in order to supply water for irrigation purposes to the Oakdale and South San Joaquin irrigation districts. This new power project will utilize not only the water required to be diverted from the south fork during the low flow season, but as much more as can be diverted, to the capacity of the conduits, during the periods of abundant flow.

There are signs of life in this region



Interior of Stanislaus power house, showing the four 8500 K. W. generators.

the new power house on the south bank of the middle fork of the river a few feet above what is known as Baker's Crossing. Here will be installed the necessary water-wheels, generators and other equipment to develop all the water power available. Plans are already made for the new power house, whose dimensions will be approximately 75 feet by 40.

It is necessary under contract to divert approximately 50 second feet of water from the south fork of the Stanislaus

now, all the way from Sonora to Lyons reservoir and up to Strawberry. There is a construction camp in full swing and every effort is being made to complete the new power project at as early a date as possible.

All the foregoing is descriptive strictly of the principal power generating and distributing system which takes care of a large and prosperous area of agricultural as well as industrial territory in a rapidly growing section of the State, in addition

to supplying San Francisco and the bay peninsula. The prosperous section of territory referred to comprises Stanislaus County and portions of San Joaquin and Contra Costa Counties. The greater part is known as the Stanislaus district of "Pacific Service" and the district office is located at Modesto, with Mr. "Charlie" Northcutt as manager. The surrounding territory served comprises an area of one thousand square miles of the most fertile

gation systems referred to are of immense value to the San Joaquin Valley. On the Modesto side there is an area of about 100,000 acres fed with water from the main canal which is of 1600 second feet capacity. On the Turlock side the acreage supplied is 187,000 and the canal of 3000 second feet capacity. There are great reservoirs on the hills back of Turlock, the main reservoir being 3000 acres in extent. But these irrigation systems,



Forebay reservoir on the hill 1500 feet above Stanislaus power house. This reservoir, built on a saddle, has two dams. The intake of the flume is by the dam on the opposite shore.

land in the San Joaquin Valley and service is made by approximately 350 miles of transmission and distribution lines at voltages ranging from 4000 to 60,000. The principal cities and towns of the territory include Modesto, Turlock, Manteca, Oakdale, Riverbank, Escalon, Farmington, Waterford and La Grange. The larger city of Stockton is also served, power being wholesaled to the Western States Gas and Electric Company.

There is a small power-house at La Grange within a short distance of the great dam whence branch out the canals of the Turlock and Modesto irrigation systems. This power-house has a capacity of about 900 kilowatts. The irri-

gation systems, are not part of "Pacific Service."

The Manteca substation is the Cordelia of the Sierra system. Here the high-tension lines come in and hence the energy is sent on its way in various directions. A new line is that from Modesto to Newman, where connection is made with the main "Pacific Service" system through the recently established connection with the transmission lines of the San Joaquin Light and Power Company at Newman. There is now an uninterrupted interconnection of power transmission systems reaching from the Cascade Mountains in Oregon down the entire line of the State of California to the Mexican border.



Switch cells at Stanislaus power house.

The San Joaquin and Contra Costa Counties section of the "Service" system is served by approximately 75 miles of distribution lines. The principal towns are Tracy, Lathrop, Byron, Bethany and Brentwood. Of this territory the section not included in the Stanislaus district has been added to the San Joaquin district of "Pacific Service."

The former Santa Clara division of the Sierra and San Francisco company has been merged with the San Jose district of "Pacific Service." As before stated, 73 miles of 60,000-volt line taps the 104,000-volt line at Port Marion substation and transmits energy to the Coast Valley Gas and Electric Company at Salinas. The Coast Valley Company serves the towns of Salinas, Monterey and King City and supplies a large irrigation load to the fertile Salinas Valley. Energy is also distributed to the Coast Counties Gas and Electric Company at San Juan Bautista, the Coast Counties Company supplying power and light throughout Santa Clara, San Benito and Santa Cruz Counties. Santa Cruz, Watsonville, Gilroy and Hollister are the most important towns served by this com-

pany. Earlier in this article the statement was made that the Sierra and San Francisco Power Company was best known to the general public from the fact that it supplied the motive power to operate the United Railroads in San Francisco. The high-tension lines come into San Francisco at the Bay Shore substation, just south of the city limits, where energy from the 104,000 volt lines is stepped down to 11,000 volts for transmission to

the steam turbine plant at North Beach. There the electricity is converted into direct current for the local street car system and a small industrial load.

The North Beach power plant is situated on the shore of San Francisco Bay near the location of the Panama-Pacific Exposition grounds. Its present generating equipment consists of three 9000 K. W. steam turbo-generators. Steam is supplied by eighteen boilers aggregating 10,300 boiler horsepower and fitted with complete fuel-oil burning apparatus. The station has all the necessary auxiliary equipment.

Thus another and a valuable link is added to the "Pacific Service" chain.



Stanislaus flume following the course of the river between the power plant and Sand Bar



# *A Veritable Prima Donna Among Cows*

By J. W. COONS, Manager Yolo District.

Tilly Alcartra, the world famous cow belonging to A. W. Morris & Sons of Woodland, has many records of accomplishment. She has been honored on many occasions, but not on the spectacular order until recently.

A few months ago this cow, among others of the Morris herd, was taken north to Seattle and Portland. When in Portland the Ad Club in that city gave a banquet for Tilly in one of the best Portland hotels. It is said that the cow behaved splendidly on the occasion. When the Mayor of Portland was extending a welcome to those assembled, Tilly understood that she should make some kind of a response, so she gave several "moos" to let all there know that she appreciated the attention she was given. After this banquet, she was taken to one of the largest department stores in Portland, and to the tenth floor in an elevator, where she was placed on exhibit for several hours. Tilly Alcartra was also honored by the San Francisco Ad Club,

on October 29, 1919, when she was in attendance at a luncheon given by that club at the Palace Hotel.

Tilly's record runs as follows: She was the first cow to produce over 30,000 pounds of milk in one year, and she is the only cow that has produced over 33,000 pounds of milk in one year. She has the world's records for production for all periods from one to six years, the most notable being the record produced under continued tests.

In addition to holding the world's records for production, Tilly produces these results at a profit. While it required more food to feed her than the ordinary cow, it has been shown that under conditions in 1919 she produced \$3.17 in milk for each \$1.00 of feed consumed. She therefore shows a profit on each \$1.00 in feed of \$2.17.

Tilly is the mother of Tilly Alcartra No. 2, which sold for \$11,200, and five other bulls and cows, which are probably of equal value. While Tilly is not elec-

trically operated, she is served with electrically irrigated and electrically chopped food, and enjoys the luxury of an electrically lighted barn. The A. W. Morris & Sons ranches, which comprise about 2000 acres, are connected for irrigation by electric power.



Tilly Alcartra, most honored among dairy cows in Yolo County.



# Visualizing Gas Sales

By H. M. CRAWFORD

It is a very difficult thing to sell manufactured gas, especially for house heating and industrial purposes. Gas, as a commodity, is invisible and the unit of measurement as we usually state it, 1000 cu. ft. of gas for a dollar, means absolutely nothing to the customer.

So long as we continue to sell a lot of sheet metal with a gas burner in it, or a cast iron box lined with fire brick, and stick to the usual talk about the cost of gas as compared to the cost of coal or oil, we will not set the world on fire with our sales.

In manufactured gas, as made today, we have one of the greatest fuels available to the civilized world, and if we take stock of our commodity and *visualize* for the customer its *usefulness*, then we have opened the way for a tremendous sale of our product.

Man is a selfish creature, and it is a well-known sales fact that he must be appealed to largely from that standpoint. In selling gas, therefore, let us put our best foot forward and look well to the statements we make in its favor. Let us see that gas is *visualized*.

The great transcontinental railroads make no effort to advertise railroad tickets, instead they show a mountain stream and a man fishing, with all the beauties of nature brought out forcefully in the picture. In other words, they *visualize* for us the benefit to be obtained by travel. If this *visualization* is opportune, then one buys a railroad ticket as a natural sequence.

Let us look at another great industry which uses similar methods, the Victrola. The entire appeal of this tremendous industry is made to man's love of pleasure and music. Note the picture which is presented, a Victrola surrounded by the great operatic artists of the world, each, in turn, appearing and singing for the benefit of the one who owns a Victrola. There is no effort to get down to earth and sell a polished mahogany cabinet or the records to be used therein, the appeal is made on a higher plane and *visualizes* the pleasure which will be derived when we own the instrument advertised.

This is also true of the automobile, which is shown to us not as a piece of machinery, but as a means of recreation

and enjoyment. Here again our selfishness is appealed to in the strongest terms and our desire for touring is stimulated by the alluring picture of the benefits to be derived from the great outdoors.

We of the gas fraternity may well profit by these examples in so picturing our product that it may be likewise attractive. Gas as we supply it in city mains has only a potential value; it can be likened to the mountain stream which has not yet been harnessed to the powerhouse. The gas consumer knows little about our gas and cares less; his interest, if any, begins and ends in what gas will do for him in the way of comfort and convenience, therefore we must endeavor to *visualize* for the customer the great benefits to be enjoyed from the use of our commodity.

Many times we are drawn into a discussion of the details of a certain furnace or appliance using gas, and the relative operative cost of gas per month with the cost of some other fuel. It is seldom that we have any advantage in these particulars, frequently the contrary is the case, therefore it is much more important that we feature results first and that we *visualize* them for the prospective customer as has been done with the railroad ticket, the victrola and the automobile.

The cost of the appliance or the gas to be used therein are not in reality serious factors, although any one who has ever gone into the field to sell gas knows that a prospective customer will immediately point out these features if given the opportunity.

As has been so aptly stated, the salesman must first sell himself before he can hope to have much success with the customer. It follows then that we must convince ourselves that our commodity is the best and most logical fuel to use, that the benefits our customer will derive are comfort, convenience and pleasure. These factors are so great that the matter of cost becomes of secondary importance.

Certainly none of us are endeavoring to do things in the cheapest way; if we were we would be walking instead of burning up automobile tires and gaso-

line. We would be using a washing board instead of an expensive washing machine. People nowadays are not concerned in doing things cheaply, they are looking mainly for comfort and speed, and they are more than willing to pay for it if the salesman has the ability to *visualize* for them what they may obtain for their money.

The methods of introducing the electric (gas men take notice) vacuum cleaner are worthy of emulation. These machines have been put on the market and sold by thousands at fifty to one hundred dollars, when a good broom could be bought for a dollar, which, with the application of a little "elbow grease," would accomplish nearly the same results, but—there is the rub; people nowadays wish to do nothing that can be accomplished by machinery, it is therefore natural that the *visualization* of a labor-saving device enables the salesmen to get the signature on the dotted line without the matter of price and operating costs entering into the transaction.

As gas men and salesmen we must keep this in mind; it is not what the gas costs per month or what the appliance may cost, *it is what the buyer gets*, and it is worth the price, whatever it is, because an appliance using gas is just as much of an improvement over other methods in the way of comfort, conveni-

ence and the quality of results as a vacuum cleaner is an improvement over the broom. It is good for our souls to take stock of our commodity once in a while and "sell ourselves" on these ideas.

Think of the incidents which constantly occur in the home of the man who burns coal in his furnace. If we could record the number of times when he chops kindling, when he shovels coal, when he endeavors to get heat on a cold day and the furnace refuses to respond, when he soils his new suit and scatters soot and dirt on his wife's curtains and rugs, these things are, to our civilized ways, real troubles, and when we compare them with the ease and cleanliness of a gas furnace and *visualize* for this same man the comfort of a gas burning appliance and the idea of simply turning a handy valve to get heat instantly, *then* we are selling gas in the right way. We must sell the idea of using gas for heating and industrial work because gas is better than other fuels. We must see that our prospective customer gets a mental picture of *what gas can do for him*, we must picture for him its benefits. *We must show him through our advertising and our salesmen that his money will be well spent and that regardless of cost or anything else gas is the ideal fuel and is the modern way.* We must *visualize* our product.

## Gas Men En Route to Portland

By the time this issue of PACIFIC SERVICE MAGAZINE reaches its readers the twenty-seventh annual convention of the Pacific Coast Gas Association will be in session at Portland, Oregon. Considering the unusual stress of business in all directions and the distance of the meeting place from the center of activities, the attendance from California promises to be up to expectations.

In response to the notice sent out from headquarters in San Francisco by Secretary Bostwick there have been received, up to the time of writing, forty-one acceptances from the central metropolis, fifteen from Los Angeles and vicinity and five from points east of the Sierra Nevada Mountains. W. P. Hutchinson is en route from Bridgeport, Conn.; Merrill N. Davis from Bradford, Pa.; E. S. Dickey from Baltimore, Md.; A. G. Holmes from

Pittsburgh, Pa., while from Reno, Nev., is registered W. M. Phillips.

In the delegation from central headquarters in California will be a goodly number of "Pacific Service" members, including heads of departments and district managers. From San Francisco will come two of the Jones family, L. B. and E. S.; Harold Basford, C. B. Babcock and R. J. Thompson. Among the Los Angeles contingent are heralded Messrs. A. B. Day, president of the Association, and A. B. McBeth, a director.

Undoubtedly this list will be materially added to before the convention assembles. Meanwhile, from the convention city comes word that the Northwest will be adequately represented by gas men from Portland, Salem, Tacoma, Seattle and other parts of the States of Oregon and Washington.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

An event of the vacation period in our Association's activities which vies with the annual dinner in the race for popular favor is the annual picnic. It is popular

ground in the neighborhood of San Jose, was chosen. The date was Saturday, August 21st.

It is always a good sign when, at the close of any yearly function, the consensus of opinion votes it the best ever. This expression of satisfaction has been heard more than once in connection with our annual picnic, but it was heard, the writer thinks, more often and more loudly this year than ever before. There is more than one reason for this. First, Alum Rock Park is an entire change of scene from our customary "Pacific Service" surroundings. It is, in a way, in a corner by itself, as it were, and it is a remarkably pleasant place to journey to. The way by rail is picturesque and

the highways are excellent for motoring. Then, when one arrives there it is to find the most ideal picnic ground in this section of the world. One feature alone puts it ahead of the other places, and that is the natatorium, by which high sounding title the swimming tank is popularly known and recognized by the people of San Jose and vicinity.

There is an unusually fine dance hall at Alum Rock Park; there is a ready-made dining room under the trees; there are lawns to sprawl about on, hillsides to climb; and last, but not least, there are sulphur springs where one may swallow without charge as much vile smelling and worse tasting water as one may care

not only because it affords the boys and girls of "Pacific Service" an opportunity to gather together at some favored spot where there is both sunshine and shade but, also, because it gives the little ones, future members of our "Pacific Service" family, an equal chance with their elders in the sport and play that every modern aggregation of working people finds not only a healthful but necessary interlude in the year's schedule of faithful, unremitting service.

Every year, then, we board some train or boat and hie us to some meeting place where everything possible in the way of wholesome entertainment and refreshment is provided for a whole day and evening of honest fun. We have had a succession of outings at Pinehurst, in the foothills back of Oakland, and for a time it looked as if that would be our constant stamping ground, but men as well as women need a change, and one was made last year when "Pacific Service" camped in Shell Mound Park and strove with riotous laughter to drown the noise of the trains rushing to and from the mole. This year a yet more decided change was made and Alum Rock Park, a well known picnic



Race for boys under twelve years of age.



The ladies' race proved sufficiently exciting.

to absorb in the pursuit of health.

No wonder, then, that those in charge of arrangements found their resources taxed to the utmost to provide for the nine hundred and upward of persons



Amateur cooks who did everything but cook. Reading left to right, those in uniforms are: Chas. Cowell, Geo. Baldwin, Geo. W. Pollard, F. A. Leach, Jr., Henry Bostwick, E. W. Florence, H. F. Jackson, John D. Kuster, W. G. Vincent, Jr., Lee H. Newbert.

who presented themselves at tables spreading under the trees when the gong sounded for the barbecue. The Redwood and San Jose districts played hosts on this occasion and the committees were unusually energetic. Everything was seen to in advance. A special train was provided to convey visitors from both sides of San Francisco Bay to San Jose, where direct connection was made with the Peninsula electric cars and automobiles to take them over the few miles that lie between the Garden City and the canyon resort. The day was ideal. It showed the summer of the famed Santa Clara Valley at its best. Everybody got there well before noon and had some hours of go-as-you-please entertainment varied with races, swimming, fortune telling and other pleasing features. Of course, the "kiddies" were looked out for. There were slides and swings, candy and all sorts of alluring soft drinks, to say nothing of the fish pond where every little one who cast a line was rewarded with a prize.

One stunt which caused a good deal of amusement was a sort of "Mysterious Mr. Raffles," in which some person whose identity for the moment was concealed was to be accosted with a certain formula such as, "A-ha, Mr. \_\_\_\_\_, Pacific Service Employees' Association planned this event for your special pleasure. The day would have been spoiled without you." There were many amateur Sherlock

Holmes in the crowd but only one had any chance from the start. Mr. Joe Worthington owes his capture of the \$10 prize to a persistency worthy of a greater cause. He found his man by the process of elimination, that is to say, he addressed every human being on the ground with the prescribed formula until at last he caught the right one who 'fessed up after a very strenuous attempt to put his questioner off the scent, as he had others whose instinct had led them to "spot" him. Need we say that this "strange unknown," described in the advertisement as "a very vain and eccentric individual who labors under the delusion that the whole picnic and barbecue was planned for his special entertainment," was our dear Ed Florence, genial manager of the Redwood District.

In the race program, the 100-yard dash brought out a fast sprinter, Harold Anderson, Electric Distribution Department, Alameda County. Harry Eckenroth of the Marin District made a splendid showing and won one of the four heats, but he succumbed to the superior prowess of the younger sprinter. Concerning the other events on the athletic program it will not surprise our Electric Department friends to hear that the pole-climbing contest was won by P. A. Errickson of the Alameda County District; the rope-throwing contest was carried off by T. W. Torre, San Jose; the shoe race for boys was won by Jack Halsteauk of San Jose; 50-yard race for boys under 12 years by W. Tripp; 50-yard race for girls under 12 years by C. McIntyre; 50-yard race for ladies by Daisy Leggett; three-legged race by



A group of "Pacific Service" entertainers.

Farmer and Bazza; fat men's race by Mr. Worthington; ladies' race by Mrs. A. Clark; sack race by Mr. Leopold; potato race by Miss Stangland. The relay race was won by the Oakland team, consisting of Daisy Leggett, Adele Narinian, Miss Stangland, Miss Brewer. The relay race for men was won by the Oakland team mainly because sprinter Anderson was held in reserve for the final lap.

At this point it is obligatory upon the writer of these notes to admit that there was a baby show and that he, the writer, was called upon and agreed to act as chairman of the committee of judges. In that capacity he was the "goat" of the occasion, and it is to the credit

of all mothers who brought their babies upon the platform for exhibition that whatever any one of them thought of the committee's decisions as voiced by the aforesaid "goat," each accepted such decisions with the good grace that showed her to be a true and worthy member of our "Pacific Service" family. The prize for the best male baby was awarded to Charles Lowell Holdiman, the 16-months-old son of Mr. and Mrs. Charles Holdiman of San Jose; the girl baby prize went to Anna Marie Costa, the 11-months-old baby daughter of Mr. and Mrs. John S. Costa of the San Jose District.

The barbecue was rightly described in a local newspaper as a regular spread. It was directed by Mr. John D. Kuster, our energetic manager of the San Jose District, but the actual preparation of the feast was entrusted to a professional hand, Ben Ortega, who has presided over more barbecues in his active existence



Ed Florence, the "Mysterious Mr. Raffles" of the occasion.

than Eddie Graney has over prize fights. When it is understood that upwards of 900 persons sat down at the tables, which were covered with real tablecloths and equipped with real napkins, and that every soul there had all he or she wanted of salad, barbecued lamb, barbecued beef, potatoes, ice cream and coffee, it speaks volumes for the management.

Several of our company's officials donned aprons and caps and paraded up and down in the roles of assistant cooks. To the credit of the feast be it said that not one of them was actually permitted to do any of the cooking. Among these persons may be mentioned John D. Kuster, already referred to; F. A. Leach,

Jr., recently appointed assistant general manager of the company, bearing his blushing honors becomingly; Lee Newbert, new manager of the Alameda County District; Ed Florence, already referred to; "Cap" Baldwin, the resourceful gentleman from Sacramento; Harry Bostwick, our San Francisco District manager; W. G. Vincent, valuation engineer; Chas. Cowell, Alameda County District; Geo. W. Pollard, right-hand man at San Jose. Of course, Earl Fisher was on hand with his wife and kiddies. Although president of our Association he mixed with the crowd as a modest individual member. He found plenty to do in ac-

knowledging congratulations upon his recent appointment to the head of the Commercial Department.

The committee in charge of the affair included the barbecue committee, John D. Kuster, chairman; police committee, F. G. Maynard, chairman; dance com-



Press representative taking names for his "rogues' gallery."

mittee, H. S. Lane, chairman; publicity committee, F. S. Myrtle, chairman; reception committee, E. W. Florence, chairman; stunts committee, W. T. Kellogg and E. G. McCann, joint chairmen; sports committee, H. W. Beekman and H. L. Eckenroth, joint chairmen. Our own Fred George was chairman of the honorary judges committee, of which J. P. Coghlan, P. M. Downing, F. A. Leach, Jr., E. H. Steele, W. G. Vincent, Jr., and W. S. Yard were more or less inactive members.

All of the foregoing goes to show that this was a picnic of picnics. It would not surprise the writer if Alum Rock Park, San Jose, were elected a perpetual picnic ground for our boys and girls of "Pacific Service"; anyway, until something still better is discovered.

The one thing that was wanting to make the success of the affair complete was the presence of Mr. John A. Britton and our new president, Mr. Creed. Unfortunately, they were compelled to be absent on an inspection trip. We wish for better luck next time.

F. S. M.

The following communication addressed by our new "Pacific Service" president to the chairman of our Pacific Service Employees' Association furnishes an admirable illustration of what we mean when we speak of the "Pacific Service" spirit:

August 18, 1920.

Mr. R. E. Fisher, Chairman  
Pacific Service Employees' Association,  
445 Sutter Street, San Francisco.

My dear Mr. Fisher—I own receipt of your letter of the 14th, inviting me to become a member of the Pacific Service Employees' Association. I very much appreciate the invitation and am very happy to join the Association. You will find herewith my application for membership. The Association commands my respect and will have my hearty support and encouragement.

With the expectation of seeing you before long and discussing the Association in an intimate way with you,

Very sincerely yours,

W. E. CREED,  
President.

Thank you, President Creed!

#### PACIFIC SERVICE TENNIS TOURNAMENT.

Much interest is being manifested in the coming tenth annual handicap singles tennis tournament, which will be held October 2 and 3 on the two company courts at Temescal substation, located on the northeast corner of Fifty-first Street and Shattuck Avenue, Oakland. All members in good standing will be eligible to play.

Special interest is being shown in this year's tournament due to the fact that the handsome silver loving cup which must be won by one player three times before becoming his permanent property, has been won twice by each of three individuals. Messrs. E. E. Dodge, R. A. Monroe and I. C. Steele have two wins each to their credit, and if these men should meet in competition the spectators should be treated to some excellent and hard-fought tennis. The players of less experience, however, should not be discouraged, because these men will all carry heavy handicaps. It is rumored that E. E. Dodge, the most dangerous of the trio, will not play in the coming event. Several players of no mean ability have expressed their intention of going after the scalps of these men, and it is quite within the possibilities that a new name will be engraved on the cup this year.

Last year's play brought out some very fine talent and showed remarkable improvement in the play of several of the old timers, such as Messrs. E. J. Beckett, J. M. Mayfield, E. B. Henley, P. M. Downing, C. E. Sedgwick and J. H. Parker. W. G. Vincent and Ed Florence were slightly off their game last year. It is rumored that Ed hopes to get a chance to avenge his defeat of last year by Henley and we sincerely hope that these two will be fortunate enough to meet. We also hope for weather clear and warm. The committee is making arrangements to supply witch-hazel and professional rub-down artists for the exclusive use of these small boys of "Pacific Service."

The tennis courts are in excellent condition and we should all have an enjoyable time together. Refreshments will be served on Sunday, October 3, to players and spectators.

I. C. STEELE,  
Chairman Tennis Committee.



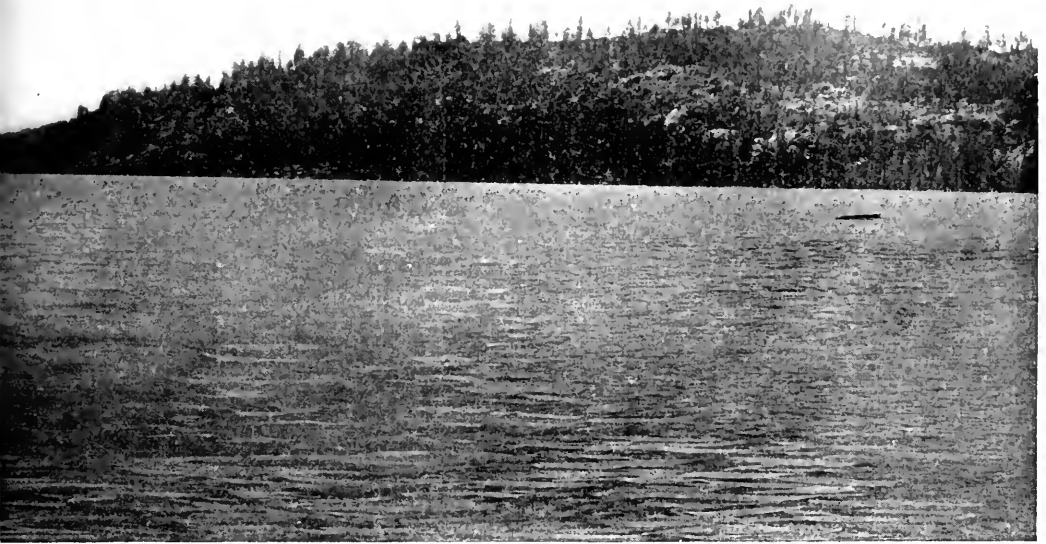


Lake Strawberry, the largest storage reservoir in the Sierra system of "Pacific Service," h  
miles

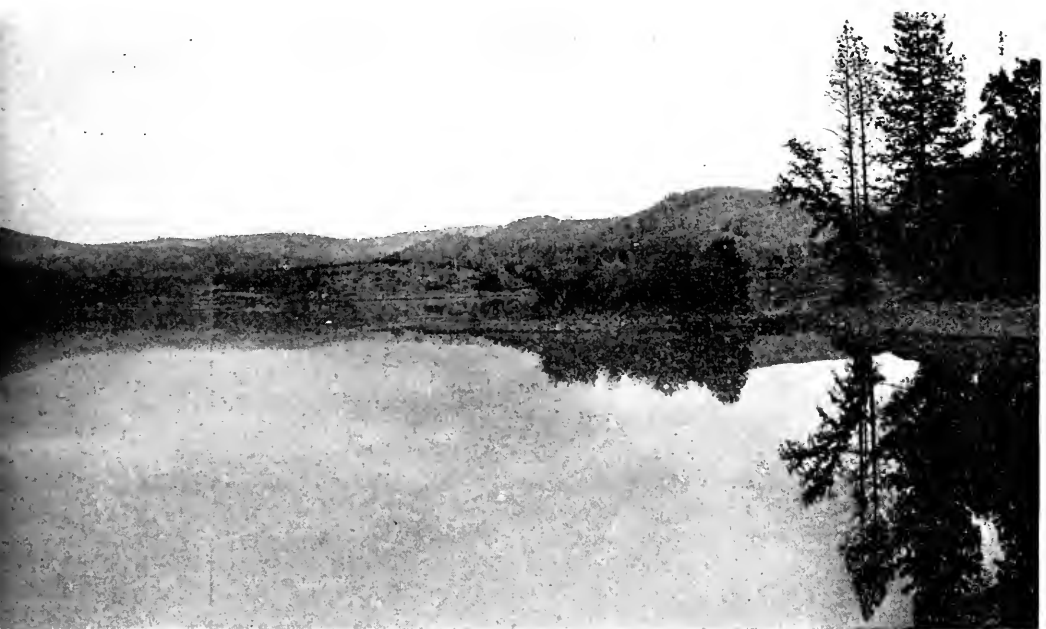


Phoenix Reservoir, five miles from Sonora, is an important feature of the Tuolumne wat  
canals supplying the districts of Sonora, Jamestown and Colu





city of 780,000,000 cubic feet. It lies 5400 feet above sea level in the pine country thirty nora.



that is a part of the Sierra power system of "Pacific Service." From this reservoir run water for mining and irrigation as well as domestic purposes.



## *The Financial Side of "Pacific Service"*

Following is approximate condensed Income Account Statement for the eight months ended August 31, 1920, compared with the same period of the preceding year:

### EIGHT MONTHS ENDED AUGUST 31st

	1920	1919	INCREASE	DECREASE
Gross Earnings, including Miscellaneous Income.....	\$22,705,763.07	\$17,250,412.75	\$ 5,455,350.32	.....
Maintenance and Reserve for Depreciation.....	2,738,691.17	2,028,494.36	710,196.81	.....
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	13,149,441.91	9,101,844.39	4,047,597.52	.....
Total Expenses.....	\$15,888,133.08	\$11,130,338.75	\$ 4,757,794.33	.....
Net Income.....	6,817,629.99	6,120,074.00	697,555.99	.....
Bond and Other Interest.....	3,218,811.01	2,803,933.16	414,877.85	.....
Balance.....	\$ 3,598,818.98	\$ 3,316,140.84	\$ 282,678.14	.....
Bond Discount and Expense.....	186,278.92	138,615.29	47,663.63	.....
Balance.....	\$ 3,412,540.06	\$ 3,177,525.55	\$ 235,014.51	.....
Additional Depreciation Reserve.....	666,666.67	666,666.67	.....	.....
Surplus.....	\$ 2,745,873.39	\$ 2,510,858.88	\$ 235,014.51	.....
Dividends on Preferred Stock.....	1,318,412.99	1,127,144.21	191,268.78	.....
Balance.....	\$ 1,427,460.40	\$ 1,383,714.67	\$ 43,745.73	.....
Dividends on Common Stock.....	\$50,101.45	\$50,101.45	.....	.....
Balance.....	\$ 577,358.95	\$ 533,613.22	\$ 43,745.73	.....

In the eight months to August 31, 1920, gross earnings increased \$5,455,350. In the same period there was a net addition of 23,920 customers. The latter figure is, perhaps, the most satisfactory index of the Company's continued and substantial growth, as the gross earnings for 1920 were influenced to some extent by new rate schedules and by the inclusion of additional properties.

Interest charges during the last eight months, after deducting more than \$1,000,000 for depreciation, were earned more than 2.1 times, net income available for bond interest being \$6,817,629, interest charges, \$3,218,811, and balance after interest \$3,598,818. In this connection, it may be remarked that the tone of the general market appears to indicate some improvement over the low prices of long term bond issues which have been prevalent for some time; and it seems probable that the present opportunity to purchase bonds of the unquestioned merit of Pacific Gas and Electric Company General and Refunding 5's on a basis yielding the investor approximately 7 $\frac{1}{4}$  per cent over a period of more than twenty-one years, will not be available for a very extended period of time.

Comparative earnings statement for the twelve months ended August 31st follows. After the payment of the full year's dividends on both preferred and common stocks, there remained a balance at the close of August, 1920, of \$154,934. The season is now approaching when we may reasonably anticipate that the fall rains and snows will diminish or bring to an end the water shortage which has unfavorably affected our earnings for several months; the recently authorized rate increases are

beginning to exercise a beneficial influence on net earnings; and within a few months, the completion of new hydro-electric installations will make available for distribution a large additional quantity of energy, at lower cost than that now generated in steam stations.

### TWELVE MONTHS ENDED AUGUST 31ST

	1920	1919	INCREASE	DECREASE
Gross Earnings, including Miscellaneous Income.....	\$32,038,037.91	\$25,498,400.07	\$ 6,539,637.84	.....
Maintenance and Reserve for Depreciation.....	3,958,679.80	3,012,909.95	945,769.85	.....
Operating Expenses, Rentals, Taxes, (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	18,548,241.68	13,256,205.90	5,292,035.78	.....
Total Expenses.....	\$22,506,921.48	\$16,269,115.85	\$ 6,237,805.63	.....
Net Income.....	9,531,116.43	9,229,284.22	301,832.21	.....
Bond and Other Interest.....	4,700,134.79	4,170,943.82	529,190.97	.....
Balance.....	\$ 4,830,981.64	\$ 5,058,340.40	\$.....	\$ 227,358.76
Bond Discount and Expense.....	255,614.30	202,222.56	53,391.74	.....
Balance.....	\$ 4,575,367.34	\$ 4,856,117.84	\$.....	\$ 280,750.50
Additional Depreciation Reserve.....	1,000,000.00	1,000,000.00	.....	.....
Surplus.....	\$ 3,575,367.34	\$ 3,856,117.84	\$.....	\$ 280,750.50
Dividends on Preferred Stock.....	1,720,230.24	1,500,512.52	219,717.72	.....
Balance.....	\$ 1,855,137.10	\$ 2,355,605.32	\$.....	\$ 500,468.22
Dividends on Common Stock.....	1,700,202.90	*1,700,202.90	.....	.....
Balance.....	\$ 154,934.20	655,402.42	\$.....	\$ 500,468.22

\*Full year's dividends on Common Stock inserted for sake of comparison.

### STATEMENT OF CONSUMERS BY DEPARTMENTS, AS OF AUGUST 31ST

August 31	Gas Department	Electric Department	Water Department	Steam Sales Department	Total	Increase Each Year
1907.....	113,948	49,813	5,502	.....	169,263	.....
1908.....	126,162	58,128	5,737	.....	190,027	20,764
1909.....	133,579	65,967	6,334	.....	205,880	15,853
1910.....	145,477	78,586	6,686	.....	230,749	24,869
1911.....	159,136	93,994	7,206	23	260,359	29,610
1912.....	187,525	109,379	7,884	173	304,961	44,602
1913.....	201,359	124,755	8,352	245	334,711	29,750
1914.....	214,218	141,374	8,994	310	364,896	30,185
1915.....	225,712	160,310	9,522	358	395,902	31,006
1916.....	228,363	172,718	9,984	387	411,452	15,550
1917.....	237,675	187,358	12,526	425	437,984	26,532
1918.....	249,364	203,766	13,095	446	466,671	28,687
1919.....	262,936	219,617	13,167	444	496,164	29,493
1920.....	279,110	257,674	16,277	422	553,483	57,319
Gain in 13 years.....	165,162	207,861	10,775	422	384,220	384,220

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - - BUSINESS MANAGER

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*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII SEPTEMBER, 1920 No. 4

### EDITORIAL

Following upon the heels of the enactment by Congress of a measure which, it is expected, will enable to a considerable extent the unlocking of the great water power sources of the country for development in the interest of the entire commonwealth, we are pleased to note what seems to be a general awaking to the realities of a situation whose acuteness has been called to the public attention far and wide for now some years.

In the past it has been left to those particularly interested to do the calling. Power companies, bond houses and bankers have taken the lead in a campaign to compel recognition by the National Legislature of the absolute need for hydro-electric development in the interest of commercial, agricultural, industrial and every other kind of progress and, as a means to the desired end, the removal of hampering restrictions which the country has owed to the political agitator and so-called conservationist who would obstruct enterprise of every description which appeared to present opportunity for those embarking upon such enterprise to gain financial reward for their courage and financial risk. The result has been that those advocating, no matter how clearly and logically, a change of conditions for the common good have lain

under the suspicion of unadulterated self-interest, and their words have not always struck home.

But now other minds have taken up the hydro-electric problem. The public utility commissions of the country are on record in many instances for declarations in favor of water power development. The threatened shortage of oil and coal, perhaps, has done more than anything else to call attention to the most available fuel of all, the fuel that is supplied by the melting snows from the mountain summits. The president of the California State Railroad Commission has taken a very decided stand upon this question and his public utterances are of public record. And now other public men are coming to the front to help along the good cause.

The most recent expression of opinion to be called to our attention is that of Mr. Percy V. Long, a gentleman who served the city of San Francisco as its legal adviser from 1903 to 1917. In his official position Mr. Long came in close contact with the public utilities, for it was his duty to represent the city in all actions involving rates established by the then constituted authorities and other matters connected with the public service in which the public utilities and the city government were severally concerned. Mr. Long, then, is eminently qualified to discuss this subject of water power which lies so near to our hearts in the present crisis. In a recent interview Mr. Long is quoted as follows:

"The most pressing necessity of the West is the development of its natural resources. The most available resource and the one which can be developed for the service of the greatest number of people and industries is water. Water used for the generation of electricity means the establishing of factories, and, in addition, goes a long way toward conserving fuel and supplying the shortage of labor.

"If the needs of a growing population are to be accommodated, hydro-electric development must be planned in advance of population. This means the investment of enormous sums of money which must be borrowed.

"Unless the public encourages public utility planning by adopting a fair and reasonable attitude towards charges for service, money will not be available, for the lending public will not loan its money unless it is assured of a return.

"Today lack of power is retarding development to a very great degree. It has been the experience of power companies that when planned development has been achieved the growth of population and increased demand furnished a market for the power when ready for delivery. Thus, all planning which has been for years in advance of needs has barely been sufficient for the moment. Unless money is spent on a larger scale than heretofore stagnation will result and progress will be arrested.

"It is to the credit of the West, particularly California, that practically all of the money supplied for hydro-electric development in the last ten years has come from local sources. It is the attitude of the California Railroad Commission that has encouraged California investors of moderate means to loan their money to the enterprises developing their State. Under wise regulations the commission has protected the lender by safeguarding his loan and has encouraged the utilities by assuring them fair rates.

"In the final analysis the public wants sufficient and dependable service, and this can only be obtained by co-operation with the commission in its efforts to aid in development. It is quite common to complain about the price to be paid for any kind of service, but complaints should be based upon reasonable grounds after a fair consideration of the difficulties and cost under which great hydro-electric development is accomplished. Unfair criticism of the Railroad Commission and unjustified attacks upon public utility concerns unsettle confidence and faith and ultimately result in not only poor service but too frequently prevent development sorely needed."

Mr. Long presents an unanswerable argument, surely. In fact, the whole situation as it stands today is so obvious that there should be no two opinions about it. The public press is gradually turning toward the water power problem, editorials favoring unhampered development being of daily publication. It has been said that the only real way to drive the nail home is by constant hammering. From the signs in the sky just now we venture to predict that there will be hammering enough from now on.

Under the title, "Winning the Public," a series of articles by Mr. S. M. Kennedy, vice-president of the Southern California Edison Company, has been issued from

the presses of the McGraw-Hill Book Company of New York. The articles include papers presented at public gatherings, and of these two, entitled, respectively, "The Man in the Street" and "Service," were read before conventions of the National Electric Light Association.

Mr. Kennedy has devoted a great part of his busy life to a consideration of the relations between public service and the public. He believes in courtesy as well as in efficiency, in the spirit of progress and the value of organization. The greater number of his articles have appeared serially in the columns of the *Journal of Electricity* or the *Electrical World* during the past year. They have created such a deep impression everywhere that the McGraw-Hill Company has rendered a real service by undertaking their publication in book form.

We desire, also, to acknowledge receipt of a pamphlet entitled "The Experience of the Spring Valley Water Company in Restricting the Waste of Water in San Francisco." It is the work of Mr. G. A. Elliott, the water company's chief engineer, and it is valuable for its exposition of the methods employed by the company to guard consumers against unnecessary waste of the product for whose use they pay. It is illustrative of a policy that has been established by most of the up-to-date public service corporations. Not by the number and size of its bills for service, but, rather, by the number of its satisfied consumers does the modern public utility aim to show adequate return upon investment.

#### RENEW YOUR RED CROSS MEMBERSHIP.

Having designated November 14-22 "Fourth Annual Roll Call Week," the American Red Cross expects all its members to renew their affiliation for the ensuing year by subscribing one dollar apiece. The money is needed to complete war-time obligations and carry on peace-time relief of human distress caused by famine, pestilence, earthquake, fire, flood or other great public calamity.

Mr. John A. Britton, directing the canvass for San Francisco Chapter, announces that it will be confined to three consecutive days, so as to make the actual work as brief as possible. Volunteers for this service can enroll by mailing name and address to San Francisco Chapter headquarters, Civic Center, or by telephoning Park 8600.

## Tidings From Territorial Districts

### Alameda County District

The Once-in-a-While Club, which is everyone who eats, had a good-bye luncheon with Mr. Frank A. Leach, Jr., as guest. The limit was placed at 200 and tickets went to a premium. Ticket scalpers didn't have to have a license; there was no scalping, for every one held onto his or her ticket.

Mother Talbot at the Ebell Club rooms had a splendid spread because she knew what young people liked. Agnes Buckingham was at her best in sweet songs accompanied by Homer Keesling. Finally, Uncle George Kirk arose and silence prevailed. He said he did not know why he was picked upon to make remarks and a lot of other things that all good speakers say, and then launched into a humdinger address. He said that when the California Gas Company needed a man to manage the affairs, it looked around and finally had to come to the so-called sleeping Oakland for its man—Mr. Britton. When the Pacific Gas and Electric Company came in need of a president it looked around and again had to come to the so-called sleepy Oakland—Mr. Creed. When the Pacific Gas and Electric Company came in need of an assistant manager, it looked around and again had to come to the same old Oakland—Mr. Leach.

Well, of course, there was applause and cheers. But Uncle George had not finished. He said he was called upon to perform a wedding. He was not a minister or clergyman. Then in true bridegroom style he reached in his vest pocket and procured a diamond ring. The ring was the gift of the employees of Alameda County District. They were already wedded to Mr. Leach and in the ring was their troth. Mr. Leach was called to his feet as every one arose. The music struck up "He's a Jolly Good Fellow" and every one felt it as the voices thrilled with song. Mr. Leach was overcome, but he met the occasion in a reminiscent reply.

The ring is a diamond set in platinum in band ring. On each side of the dia-

mond is the P. G. and E. emblem of a circle and triangle outline, blue enamel. Within the ring is inscribed, "Mr. Frank A. Leach, Jr., from employees of Alameda County Dist. Sept. 1st, 1920."

Mr. Howard N. Mosher, superintendent of Steam Electric Station "C," took a vacation outing in the Sierras of Northern California. It was a hunting trip. Such expeditions take many evenings of preparation and the getting ready works up a wonderful enthusiasm in anticipation. The trip was very successful. He says he shot a deer in the neck. When we were boys "in the neck" and "over the left" had a double meaning. However, the trip was successful.

The boys have a new song. The chorus runs as follows:

Little bits of powder,  
Little daubs of paint,  
Make little girls look  
What they ain't.

The Harbor View Club opened its after-vacation meetings with a dinner at the Hotel Harrison, Thursday evening, August 26. The attendance consisted of about sixty men of the gas meter department and their invited guests. Those present were especially favored by the opportunity of hearing Mr. Willis S. Yard, engineer of Gas Operations, read a paper on gas manufacture. The paper was of a non-technical character and within the comprehension of all present. Mr. Wm. Henderson, superintendent of Gas Distribution, San Francisco District, delivered a splendid talk on gas distribution during which he took up the many problems of gas service and meter men and explained remedies. A general discussion followed.

Mr. F. A. Leach, Jr., retiring manager of the district, congratulated the members on the splendid meetings they were holding and the interest shown by them in the conduct of their duties. Mr. L. H. Newbert, his successor, assured all that he was in accord with the sentiment voiced and anticipated the pleasure of attending more such meetings with the boys.

Miss Adamson, our assistant cashier, has always had an argument with herself whether she is Scotch or English. Her nativity was close to the border line. We now know. She spent her vacation at Bonnie Doon.

The boys in Mr. Brandt's department were very much under obligation to a young lady in another department for her many courtesies. The boys sent her a box of candy with the inscription: "In appreciation of your sweet disposition." Girls: Be sweet and gentle, a candy shower may come your way.

It is rumored that the Pacific Gas and Electric Company is going to buy something between Eureka and Arcata. R. A. Gents was seen traveling between the two places. Whether he was on an official inspection trip or just taking a jaunt, we don't know. Anyway it's suspicious.

Mr. Lee Newbert upon retiring as manager of the Commercial Department was presented by the members of that department with a bronze desk outfit. When he took charge of the Alameda County District the outfit was nicely arranged on his desk in his new office. A large bunch of giant dahlias in all the regal colors graced a vase on a nearby table.

Meter readers have strange experiences. George Jordan had a lady stop him and complain about the man who had been there the month before. She said that the man just pretended to look in at the meter and off he ran. She called at him to come back and read the meter, but he paid no attention to her. George asked her how the bill was and she replied it was the same as usual. He asked her what the fellow looked like. She said he was just a rough looking man. George asked her if he looked anything like him. She replied, "No, you are a gentleman along side of him." George then told her he was the man but he never heard her call. He explained how a man reading hundreds of meters per day soon can read a meter at a glance.

Martinez is not a small town. Recently a letter was received at the Martinez post-office which was sent there from Paris by some one who was writing to a friend or relative in some other part of that country. The envelope was directed

"Alpes Martini, Hotel California." Because of the rather illegible manner in which the envelope was directed, it appeared as though it was intended for the Alps Hotel, Martinez, California. The local postal authorities sent the letter back to Europe en route to its proper address.

By the way, Martinez has a beautiful location nestling in the expanse of the rich, fertile valley of San Ramon on the south, with rolling hills to the west and east and the placid bay to the north. The river steamers with stern paddle wheels plying to and fro give a picturesque setting. The time will come when the scenic settings of many of these towns will be renowned in travel.

Little Dan Cupid has shot a few more arrows into the Accounting Department at 518 Thirteenth Street, leaving our very genial head accountant bereaved of two clerks, Miss Alma Munz and Miss Hannah Hulme. Miss Munz was presented with a silver cake dish and when Mr. Leonard arrived at the office at noon he found the girls presenting Miss Hulme with a silver steak set and little Miss Sanders shouted out, "I'd be willing to take a shot at it myself." It took the Accounting Department a long time to get started but when it did, it worked fast. Who'll be next?

Bob Crowell, superintendent of the meter department, called up Mr. Brandt from down country and asked if the boys could raise enough bail money to get him out as he had been pinched for swiping grapes and fruit, intending to treat the office force when he got in. Needless to say that the money was soon raised and Bob was on his way home and some way he managed to get away with about fifty pounds of grapes and figs, so that everybody in the office had their fill.

Al Parratt says he would rather have contributed to the fund and received his share of the figs and grapes than to have been an honorary member and only receive a little sweet potato. Al was sent a stray potato incased with a rubber band and a strip of paper with apologies.

The other boys are now wondering whether Bob was actually pinched for swiping or whether the alleged bail money was a stiff price for the fruit. Was Bob profiteering?

Miss V. L. Esmond, of the bookkeeping department, Berkeley, has been transferred to the same department in the Oakland office to succeed the position of her sister, Miss A. E. Esmond, who is to join the ranks of the newlyweds. Both these young ladies have been members of "Pacific Service" for nine years, coming to Berkeley in 1911.

Never in all the history of the Berkeley office has there been such a rush of business as we have experienced since August 1. With an active enrollment of 9550 on the University of California campus, and an unusual number of vacation changes, we have had scant time to think of other things. The manner in which this mass of work was handled, with a minimum of complaints, speaks well for the personnel of the office.

J. H. Pape is still chuckling over the wild game hunt and fishing trip staged by Charlie Young of San Francisco and Mr. Crowell of the Nevada district, during their recent vacation there.

Mr. Crowell furnished the fun by his efforts to fish with grasshoppers that had been riddled by the well known red ants of that territory. After a hike of two miles to catch said grasshoppers and storing them "safely" in an empty can, he departed at 4 A. M. on another long hike to catch the limit. It is needless to say the trip was a failure as the silent army had worked while he slept.

Jack states that anyone contemplating a bear hunt should first get in touch with Charlie Young, who can give valuable information as to the proper method of hunting Bruin.

Charlie Young is a natural naturalist. He knows the mountains dominated by the P. G. and E. so well that neither a boulder along the beaten trail can be disturbed nor a tree dislodged but Charlie will detect it. The steel towers, the turns in the flumes and the dashing waters from the mountain sides are his familiar friends. If you want to know anything about the mountains, just ask Charlie.

Charlie predicts a very early winter. The butterflies began swarming on the Ides of August instead of September time. The wasps are building bigger and thicker nests. The ants are making higher mounds. The woodchucks are chucking more nuts than usual; in fact, Charlie has never seen the trees so nutty. And Charlie knows. AL A. MEDA.

## Vallejo District

A deep gloom was cast over our "Pacific Service" force of Vallejo district by the death of our loved accountant, J. G. Meredith, who succumbed to an operation at Lane Hospital, San Francisco, August 27, 1920.

Mr. Meredith had been employed by the Pacific Gas and Electric Company two and one-half years and by his cheerful, loving disposition, his faithful, energetic service, had won the love and respect of all associated with him.

He was a member of the Masonic lodge of Shasta, B. P. O. E. lodge of Redding, I. O. O. F. of Napa and the Pacific Service Employees Association. In the last named he was an enthusiastic worker and took great interest in its progress. He was of a rich, deep character, free to trust, loving his friends, counting each a treasure and devoted to his family. He leaves a widow and a son, aged six years.

Success in its truest sense crowned his short span of years. The following tribute is offered by one who knew him best:

"He has achieved Success who has lived well, laughed often and loved much; who has gained the respect of intelligent men, the trust of pure women and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem, or a rescued soul; who has never lacked appreciation of earth's beauty or failed to express it; who has looked for the best in others and given them the best he had; whose life was an inspiration, whose memory a benediction."

Manager A. J. Stephens and Traveling Auditor W. J. Agnew have enjoyed an outing in the mountains.

Mr. R. L. Dunshee, former accountant in this district, is back with us again, having accepted the vacancy caused by the death of Mr. Meredith.

A. J. STEPHENS.

## Nevada District

The opening of the deer hunting season is considered quite a social event among Nevada City hunters and everyone who can possibly go participates in the first hunt that is generally staged on the Quaker Hill side of Banner Mountain.

The 1920 season was no exception to the general rule and about forty hunters with fourteen dogs were on hand early the morning of the 15th. The Pacific Gas and Electric Company was represented by seven men, G. H. Bragg and C. E. Young, of the San Francisco office; Sid Thomas, of Colgate; Chas. Hall, from Deer Creek Power House; and Lorrin Coughlan, L. H. Hartsock and George Coughlan from the Nevada City office.

A three and two two-point deer were killed by Nevada City hunters. None of our "Pacific Service" men were among the lucky ones, although nearly everyone saw deer and some of them tried their best to hit one.

A G. M. has been approved authorizing the expenditure of a little over a quarter of a million dollars in rebuilding the Colgate-Grass Valley transmission line, changing the Deer Creek-Alta feeder connecting with Drum power house, installing transformers at Drum so that the output of Deer Creek, Alta and Spaulding power plants can be transmitted to the bay cities over the Drum-Cordelia 110,000-volt tower line.

The old 30-K. V. line between Colgate and Rome power house will be abandoned and the Middle Yuba Hydro-Electric Company at Allegheny will feed out of the Grass Valley substation direct. This change will improve the service in Grass Valley and Allegheny, as the old line has been in use about twenty years and gives considerable trouble during the stormy season.

The new line will be 2-0 copper and will run through a territory of lower altitude eliminating some of the snow troubles experienced on the old route.

L. H. HARTSOCK.

## Yolo District

During the last week in August the Julian Hotel was destroyed by fire. The fire started on the second floor in a store-room at about 2:30 P. M. Although the fire department responded promptly and

was quite effective in its work, the entire hotel was destroyed, including the store buildings that were on the first floor.

The building was erected in 1892 and it was one of Woodland's principal hotels for a number of years. The destruction of this hotel will make it necessary to go ahead with the construction of a new hotel which has been planned and for which a necessary amount of stock has been sold to insure its erection.

The 1000-K. W. steam turbine plant erected by Reclamation District No. 108 in anticipation of a power shortage has been recently taken over by the Pacific Gas and Electric Company and is being operated in connection with the rest of the system to supply a certain amount of power to help relieve the power shortage.

The Sutter Basin Company planted quite a large acreage of various kinds of melons, watermelons, cantaloupes, to be shipped to the Chicago market. The recent freight rate advance, Mr. George F. Maddock, manager of the Sutter Basin Company announces, will prevent them making further shipments East. The increase in the freight rates wiped out all profits that could be made on raising melons in this section for Eastern delivery.

J. W. COONS.

## Placer District

### MORE "PACIFIC SERVICE"

At last the secret is bared. It has been found, by actual test, that we have a few culinary artists in the ranks of "Pacific Service." How would this sound to you, if you had been working very hard for several hours and were just about ready to drop from hunger, were twenty miles from home or eats, with nothing in sight but more work, when, in this extremity a gentle voice, sounding something akin to a fog-horn or one of those ah-ou-gah contraptions that are usually a part of the equipment of an automobile, said voice coming from the direction of a fire, several fry pans, planks forming tables and benches all set with nice new tin cups, plates, knives and forks, all kinds of fruit, fresh bread, rolls and butter, the atmosphere redolent with the smell of frying bacon and eggs, steak and coffee?

OH! BOY! It was some voice that did not have to get hoarse from calling—we



were all there, nearly fifty of us. The grand rush was on. But—who were these culinary artists and the reason for the show of talent?

Our Chief, locally known as “Herb,” otherwise Mr. H. M. Cooper, manager of the Placer district, was the main squeeze, the charge de affaires or chef de cuisine, or whatever they call those that get the big feeds under way. We do not say that he was the owner of the voice—we know that somebody was—all that we positively vouch for is the size of the feed, the slices of bread, ’n’ other things. “Herb” had cut possibly five hundred slices, more or less, of nice new bread when the elbow grease feed to his arm gave out. The hungry bunch called for more bread and still more, so, to make matters short, he cut more bread, but arranged the size of the cut to three slices to a loaf. This action on his part saved several gallons of elbow grease for the better work of serving the luscious fruit of the hen and other aforesaid delicacies.

All participants unite in saying that the repasts furnished by “Herb” and his able assistants were the best ever.

No! This was not a camping party, at least it was not so planned, although considerable camping was done during the week end of June 5. The camp site being near the Bear River at the Old Settler Basin—the occasion being an extra rush job of building about 150 feet of flume in the Bear River Canal.

SOME OF THE BUNCH.

### Stanislaus District

MODESTO—the City Beautiful. Heart of 400,000 irrigated acres. Population, 1919, 4200. Population, 1920, 15,000.

The Modesto and Turlock irrigation districts are winding up preliminary work at Dom Pedro bar on the Tuolumne River, approximately 40 miles upstream from Modesto, and actual construction work will be started shortly on the \$6,000,000 Dom Pedro storage dam. In order to raise the money for this huge project an election was held in the Modesto-Turlock irrigation districts, and it is of interest to note that the bonds carried ten to one.

When this dam is completed the reservoir will have a capacity of 285,000 acre feet, which is sufficient water to supply the two districts through August and September. The natural flow of the Tuol-

umne River is sufficient to take care of the districts’ requirements up to August 1 of each year, and when the Dom Pedro dam is completed the districts will have continuous water from March 1 to October 1 of each year.

Building permits in the city of Modesto for the first eight months of the year 1920 total \$1,203,966, which is double that of the first eight months of the year 1919.

The tie-line between the Pacific Gas and Electric Company and the San Joaquin Light & Power Company through Newman has been completed, and the San Joaquin Light and Power Company is now delivering to this company 3000 kilowatts. Construction is being rushed on a substation at Newman. This will be completed in the next two weeks.

Oakdale irrigation district has decided to call an election to raise money to construct the Melones dam on the Stanislaus River, approximately 30 miles up stream from Oakdale. This storage dam will cost two and one-half million dollars. From all indications the bond election will carry three to one.

Of the sixty-five regular employees in this district, fifty-eight of them purchased Pacific Gas and Electric preferred stock. Eighty per cent. How’s that?

CHAS. S. NORTHCUTT.

### San Joaquin District

Three large Government dredgers are now at work just outside the city of Stockton, completing the rectification of Stockton Channel and San Joaquin River, preliminary to the “deep water to the sea” project, which is being fostered by the city.

The present project calls for a minimum depth at low tide of nine feet from Stockton to the sea, and the widening of the channel to 200 feet at the bottom, with proviso made for 300 feet bottom width, and much greater depth.

The fruit acreage of San Joaquin County is being steadily increased. The Horticultural Commissioner reports that there are 38,828 acres of bearing fruit, and 9697 acres coming on.

From fifty to sixty carloads of spuds are going out of Stockton over the South-

ern Pacific every day and the Santa Fe is carrying large shipments from its handy loading points in the city and in the delta. Every day Southern Pacific trains have carried from Stockton fifty or more carloads of potatoes, a large part of the produce going to El Paso, Texas, which was counted a closed market point when the new freight rates became effective.

J. W. HALL.

### San Francisco District

The industrial gas and heating department reports a number of house-heating sales during the past month. These have consisted of all types of heating, including Rector radiators, hot-air furnaces and steam boilers for supplying heat through the usual steam radiator systems.

The installation of the steam boiler has become a standard, owing to the fact that the public is largely well acquainted with steam heating and considers it to be highly desirable, especially in large residences. The installation of hot water radiators using the gas-fired boiler has also become a popular method of heating. The heat from a hot-water system is sometimes preferred, due to the fact that its operating temperature is lower than that of steam and it produces a very satisfactory means of residence heating. A few of the more prominent installations during the month are as follows:

A large steam boiler for the new residence of Mrs. Lillie B. Matson in San Francisco. This is provided with automatic electric control which operates the boiler in accordance with a small time-clock turning the boiler off and on at any predetermined hour and controlled during the operation period by a thermostat which maintains a uniform temperature at all times without attention. The installation of a plant of this type is the very best type of heating equipment on the market, as it does away with handling solid fuels and their continual dirt and muss and requires practically no attention at the hands of servants or janitors.

Another typical installation of this kind is that made for Mr. William Sproule, president of the Southern Pacific Railroad, at his fine residence on Sacramento Street, where a gas-fired hot-water boiler was installed to operate hot water radiators. This installation is also equipped with automatic controls which maintain a uniform temperature in the system.

A very large installation was made for the First United Presbyterian Church, on Golden Gate Avenue, which is to be heated entirely with gas using a large steam boiler, the same being equipped as in the case of the residences with automatic controls which do away with attendants.

Very many of these installations are being made throughout the city and they provide an excellent means of heating, using a type of apparatus which has been recently developed and which is as near perfection in the way of heating equipment as can be expected. In the great numbers of installations now operating the users advise that they are more than satisfied with the operating costs of gas as compared to other fuels as well as with its cleanliness and convenience, which good qualities are inherent in a gaseous fuel.

H. M. CRAWFORD.

It is with regret that we announce the resignation of Mr. Rush Dolson, superintendent of substations, San Francisco district.

Mr. Dolson leaves the company after a service of eight years with a most enviable record and is now going into dairy farming at Arcata, Humboldt County. His many friends wish him success in his new work. On the evening of September 1 a number of Mr. Dolson's co-workers gathered around the festive board at one of the popular restaurants where many instructive talks relating to dairy farming were given as well as a number of valuable presents.

Mr. Wm. R. Baker has been promoted from station electrician, Station "A," to superintendent of substations.

Mr. J. M. Williams succeeds Mr. Baker as chief electrician at Station "A."

Mr. Paul E. Chapman, superintendent of the electric underground department, was married to Miss Ida Butler on September 2, 1920. Miss Butler is the daughter of Mr. J. D. Butler, auditor of the San Francisco district. Good luck, Paul!

The Natoma Rice Milling Company, at Seventh and Hubbell Streets, evidently appreciates "Pacific Service," as orders have been received for the installation of 307 half horsepower 440-volt 3-phase load in motors.

S. J. LISBERGER.

## RELIEF OF THE WHITE MAN'S BURDEN BY THE USE OF ELECTRICITY

(With apologies to Rudyard Kipling.)

Take up the white man's burden,  
Send forth the electric juice,  
To turn the trusty motors  
For every kind of use.  
Use it in the bakeries,  
The dough to mix and knead,  
To beat the eggs and chop the nuts,  
And other useful deeds.

And don't forget the factories  
Along our salty shore,  
True, electric power runs most of them,  
But what we want is more.  
Use electric power in the lumber mills,  
To plane, saw, tongue and groove,  
To decrease the danger of fires,  
That engines and boilers prove.

Take up the white man's burden,  
And tell to one and all  
That by the use of electric power  
We make our overalls.  
Use it in new buildings  
For floor-surfacing the rooms;  
Have the manufacturer use it  
In making up his brooms.

Take up the white man's burden,  
You that thus succeed  
By the use of electric power  
You owe a debt, indeed.  
With up-raised hands you ought to praise  
This power left and right,  
As it does your work in the day time,  
And carries you home at night.

Take up the white man's burden, Dad,  
Make up your mind tonight,  
To wire up the old homestead,  
And burn electric light.  
Daughter can use the iron,  
Mother the washing machine;  
Son the vacuum cleaner,  
While you smoke your old "dudeen."

Mankind is fast being relieved of his burdensome toil by the use of electricity in its various forms; it being the most modern means of producing light, heat and power. The list following shows some of the uses to which this force is being applied directly or indirectly:

Metal melting furnaces	Adding machines
Lifting magnets	Ventilating fans
Furnace charging machine	Rivet heaters
Air compressor	Sewing machines
Skull cracker	Knitting machines
Traveling crane	Weaving machines
Electric driven metal rolls	Button sewers
Metal saw	Water extractors
Rock crushers	Rice hullers
Washing machines	Conveyors
Mangles	Shakers
Meat choppers	Stackers
Sewing machines	Grinding mills
Dumb waiters	Sacking machines
Egg beaters	Automatic blocks
Cake and bread mixers	Hyde splitters
Vacuum cleaners	Wool dyeing machines
Silver polishers	Wool cording machines
Dish washers	Meat hoists
Ice machines	Cream separators
Brine circulators	Butter churn
Cement mixers	Paint mixer
Hoists	Battery charging
Plaster mixers	Oxy-acetylene welding
Pipe thread cutters	Electric core dryers
Saws	Electro chemistry
Elevators	Electro plating
	Electric railways
	Etc., etc.

But why continue this list as there is a great deal more relief for the white man's burden by the application of electricity than it is possible for this article to contain. There are many catalogues and pamphlets setting forth the merits of the application of electricity in connection with the above list, as well as a greater list not named that are instructive and interesting to read and all of which serve to suggest a quicker and greater relief of the white man's burden by the use of electricity for light, heat and power purposes and spreading knowledge of the general use to be made of that unseen force which is forcing itself into every avenue of industry.

So altogether—all the time—for everything electrical! F. S. GRAY.

### BOOKKEEPING DEPARTMENT NOTES

Labor Day was celebrated by the Bookkeeping Department athletes at the Columbus Athletic Club. The feature of the informal exercises was the high jumping of Sydney Knoph.

After three months spent in the hospital, the result of an injury to his knee, Statement-taker Kennedy is again back at work.

C. C. Chapman has returned from a vacation spent on the beaches of Southern California, and Sam Pearce from Lake County resorts. Both are expected to recover.

### DISTRICT ACCOUNTING DEPARTMENT

Miss Lillian M. Lema, of the San Francisco District Accounting Department, was married on September 1 to Mr. Carl Edhammer. "Pacific Service" extends its best wishes to the young couple.

B. J. D.

The following is from the pen of Mr. C. R. Nunan, of the bookkeeping department:

### ELECTRICITY

Over the hills, the valleys and glen  
By pathway of metal wrought out by men  
I come from the mountain to leap and play  
To work the will of the modern day.

To the shadows of night, I bring the flash  
Of the sun's sweet light on the mountain pass;  
To the grimmer work of the toiling mass,  
I bear the help of the torrent's dash.

To the thoughts of men, I lend the charm  
That girdles the world with good or harm;  
To the storm tossed sailor, I send relief  
From the sweeping gale and the hidden reef.

I am the strength, the sinew of strife,  
I am the thought of dreamers gone,  
I am the power of future life,  
I am the breath from Nature's dawn.

C. R. N.



**W**

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ELECTRIC

*It's always warm  
where there's a—*

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For those chill and damp mornings and evenings—for any place where quick warmth means comfort and health insurance you'll find "**Cozy Glow**" just the thing.

Attach it as you would an electric lamp or iron, turn on the current, and in less time than it takes to tell it, the "**Cozy Glow**" will send a beam of heat right to the spot.

**Westinghouse Electric & Manufacturing Co.**

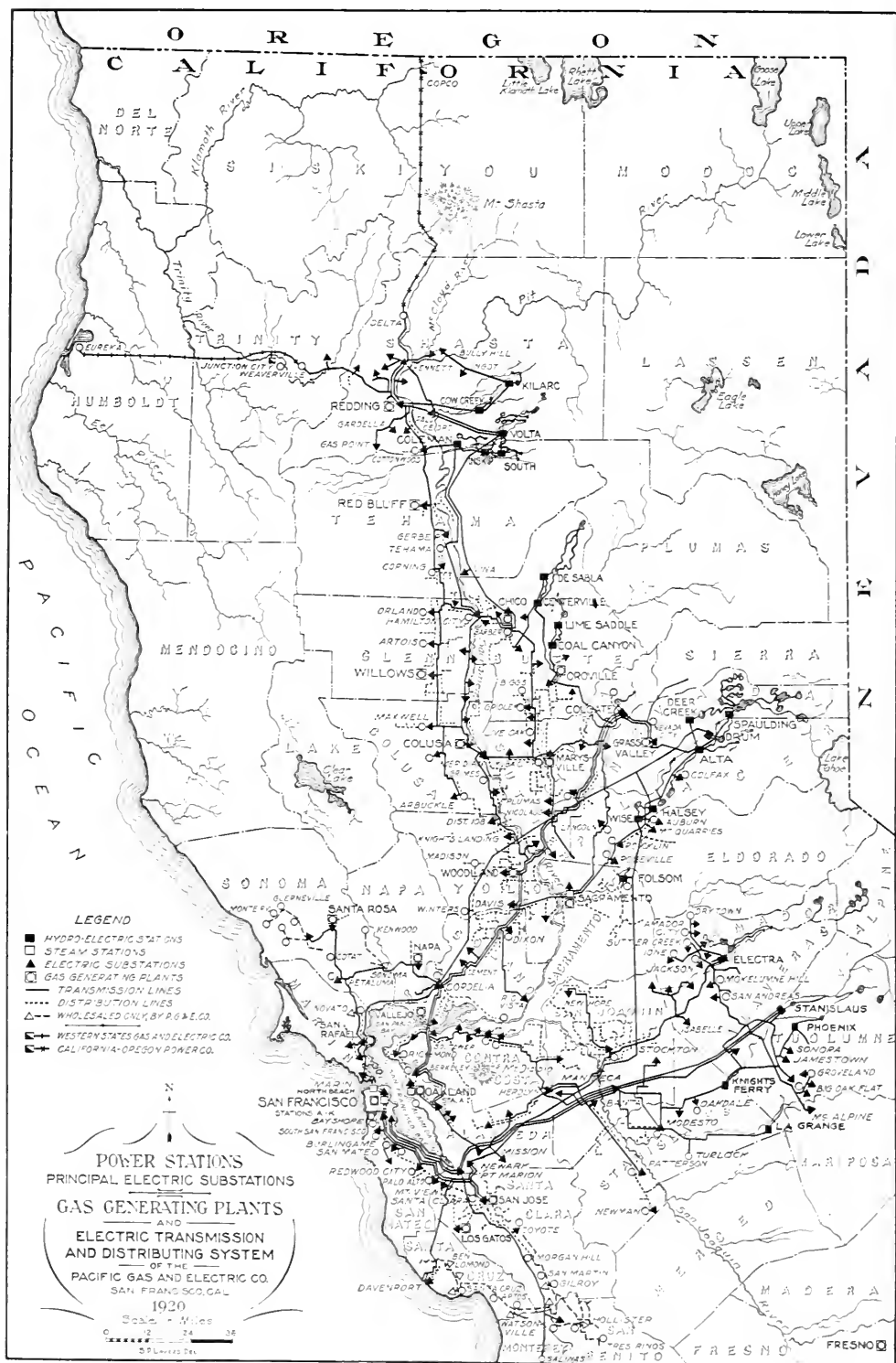
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## Pacific Gas and Electric Company Furnishes

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**GAS • ELECTRICITY • WATER • STREET RAILWAY**

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

DIRECTLY			INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
Alameda .....	30,000	El Verano .....	400	Milpitas .....	350	San Pablo .....	500
Albany .....	2,300	El Yerrito .....	3,000	Mission San Jose .....	350	San Quentin .....	2,500
Alvarado .....	700	Escalante .....	500	Modesto .....	14,000	San Rafael .....	6,000
Alviso .....	550	Espartero .....	250	Mokelumne Hill .....	300	Santa Clara .....	6,000
Amador City .....	1,100	Fairfax .....	250	Monterey .....	6,500	Santa Cruz .....	13,600
Anderson .....	800	Fairfield .....	1,000	Morgan Hill .....	750	Santa Rosa .....	11,000
Angel Island .....	280	Fair Oaks .....	300	Mountain View .....	2,500	Saratoga .....	3,000
Antioch .....	2,000	Fall River Mills .....	500	Mt. Eden .....	210	Sausalito .....	300
Aptos .....	300	Farmington .....	400	Napa .....	6,500	Sebastopol .....	1,950
Arbuckle .....	700	Felton .....	300	Nevada City .....	2,900	Shasta .....	500
Atherton .....	250	Folsom .....	2,000	Newark .....	505	Shellyville .....	200
Auburn .....	2,800	Forestville .....	225	Newcastle .....	950	Sheridan .....	250
Barber .....	300	Fresno .....	48,867	Newman .....	1,200	Smartsville .....	300
Belmont .....	375	Gilroy .....	2,900	Niles .....	1,000	Solead .....	600
Belvedere .....	550	Glen Ellen .....	900	Novato .....	400	Soquel .....	400
Benicia .....	2,400	Gonzales .....	650	Oakdale .....	2,100	Sonoma .....	1,290
Ben Lomond .....	800	Grass Valley .....	5,200	Oakland .....	225,000	Sonoma .....	3,000
Berkeley .....	65,000	Gridley .....	1,800	Oakley .....	200	South San Francisco .....	3,750
Biggs .....	500	Grimes .....	250	Occidental .....	600	Standard .....	300
Bolinas .....	200	Groveland .....	250	Orland .....	836	Stanford University .....	2,600
Brentwood .....	500	Guerneville .....	780	Oroville .....	5,000	Stockton .....	42,000
Broderick .....	600	Hamilton City .....	200	Pacheco .....	250	Suisun .....	800
Burlingame .....	4,000	Hammonton .....	500	Pacific Grove .....	2,900	Sunol .....	340
Byron .....	450	Hayward .....	4,000	Palo Alto .....	6,000	Sunnyvale .....	1,650
Campbell .....	700	Hillsborough .....	2,500	Paradise .....	500	Sutter City .....	250
Capitola .....	275	Hollister .....	2,500	Patterson .....	500	Sutter Creek .....	1,300
Carmel .....	600	Jones .....	1,000	Penn Grove .....	300	Tehama City .....	221
Cement .....	1,000	Irvington .....	800	Penryn .....	250	Tiburon .....	350
Centerville .....	850	Jackson .....	2,100	Perkins .....	250	Tracy .....	2,000
Ceres .....	250	Jamestown .....	600	Petaluma .....	7,500	Tres Pinos .....	300
Chico .....	15,000	Kennett .....	1,200	Piedmont .....	3,500	Tuolumne .....	1,000
Colfax .....	800	Kentfield .....	500	Pike City .....	200	Turlock .....	4,500
College City .....	325	Kenwood .....	200	Pinole .....	1,800	Vacaville .....	1,250
Colma .....	1,800	Keswick .....	1,800	Pittsburg .....	6,000	Vallejo .....	15,500
Columbia .....	250	King City .....	1,500	Pleasanton .....	1,500	Vina .....	300
Colusa .....	2,000	Knights Ferry .....	250	Port Costa .....	1,000	Walnut Creek .....	500
Concord .....	850	Knights Landing .....	400	Princeton .....	300	Warm Springs .....	200
Coram .....	660	La Grange .....	260	Red Bluff .....	3,530	Waterford .....	300
Cordelia .....	300	Larkspur .....	2,000	Redding .....	3,572	Watsonville .....	6,000
Corning .....	972	Lewiston .....	200	Redwood City .....	4,200	Wheatland .....	500
Corte Madera .....	350	Lincoln .....	1,500	Richmond .....	16,500	Williams .....	625
Cotati .....	200	Live Oak .....	300	Rio Vista .....	1,000	Willows .....	1,139
Cottonwood .....	400	Livermore .....	2,500	Ripon .....	300	Winters .....	1,200
Coyote .....	200	Lomita Park .....	450	Riverbank .....	400	Woodland .....	5,000
Crockett .....	3,000	Loomis .....	450	Rocklin .....	900	Woodside .....	225
Crow's Landing .....	300	Los Altos .....	500	Rodeo .....	300	Yolo .....	350
Daly City .....	5,500	Los Gatos .....	3,000	Roseville .....	4,200	Yuba City .....	1,750
Danville .....	400	Los Molinos .....	200	Ross .....	900		
Davenport .....	300	Madison .....	250	Sacramento .....	76,000	Total Cities and Towns .....	1,494,598
Davis .....	1,700	Manteca .....	2,500	Salinas .....	5,500	Add Suburban Population .....	414,687
Decoto .....	300	Mare Island .....	500	San Andreas .....	750		
Del Monte .....	300	Martinez .....	3,500	San Anselmo .....	3,000	Total Population Served .....	1,909,285
Denair .....	200	Marysville .....	6,000	San Bruno .....	1,500		
Dixon .....	1,200	Maxwell .....	480	San Francisco .....	580,000		
Drytown .....	225	Mayfield .....	1,100	San Jose .....	45,000		
Duncan's Mills .....	200	Menlo Park .....	1,100	San Juan .....	550		
Durham .....	300	Meridian .....	225	San Leandro .....	5,000		
Dutch Flat .....	750	Millbrae .....	300	San Lorenzo .....	400		
Eldridge .....	500	Mills .....	350	San Martin .....	200		
El Cerrito .....	1,200	Mill Valley .....	3,200	San Mateo .....	6,000		
Elmira .....	350						

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1—Gas only.

2—Gas and Electricity.

3—Gas, Electricity and Water.

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5—Electricity and Water.

6—Electricity supplied through other companies

7—Gas supplied through other companies

8—Water supplied through other companies

**"PACIFIC SERVICE" FACTS:**

Number of Electric Consumers .....

255,512

Number of Gas Consumers .....

277,278

Number of Water Consumers .....

16,203

Number of Steam Consumers .....

424

Total number of consumers .....

549,417

Operates 19 Hydro-Electric Power Plants.

Operates 3 Steam-Electric Power Plants.

Operates 20 Gas Plants.



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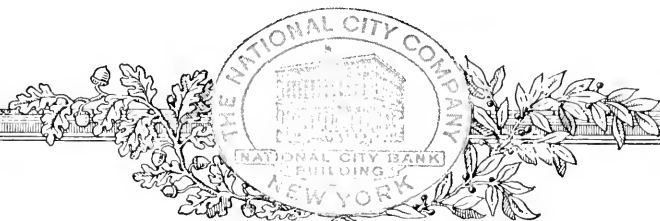
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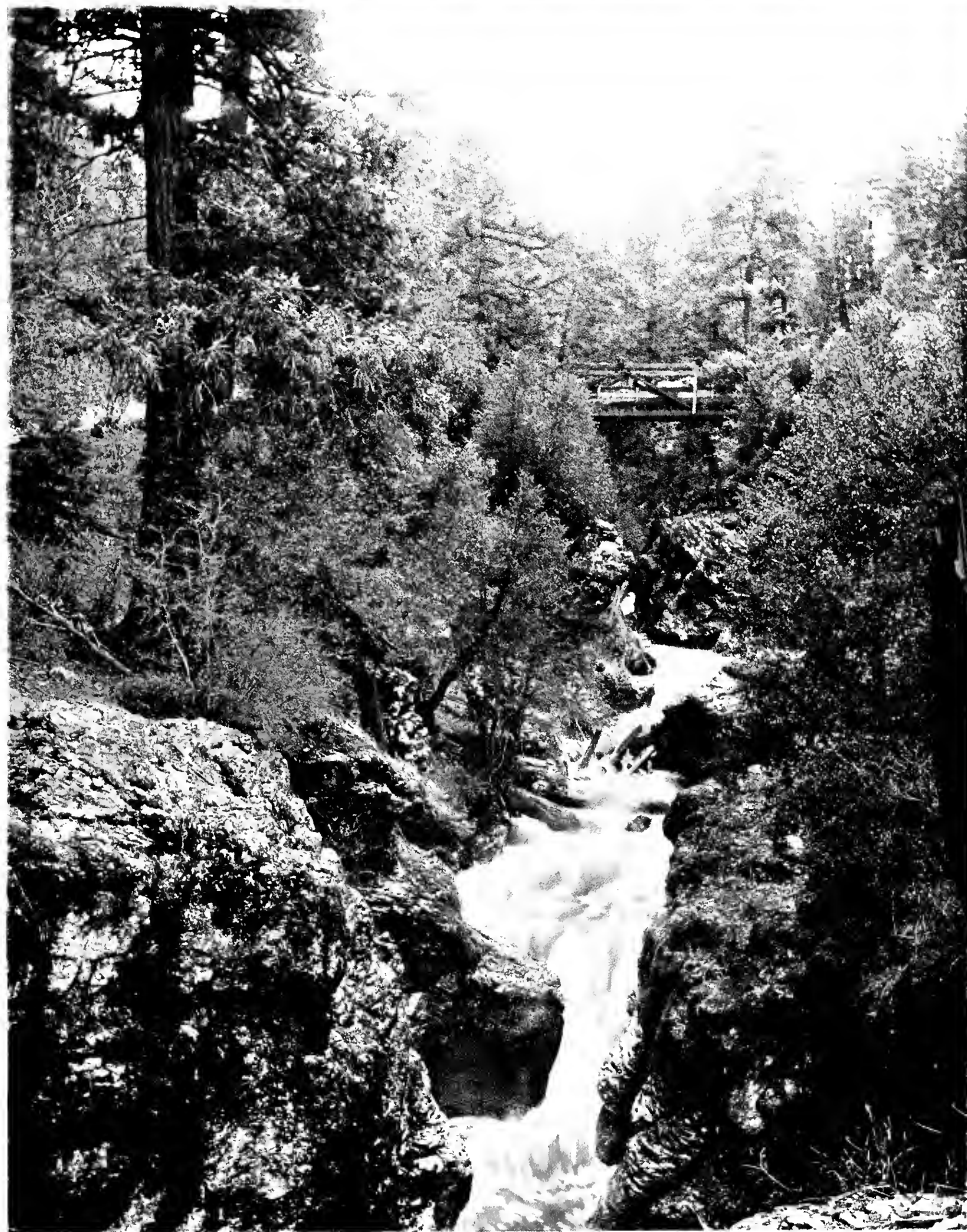
When writing, please mention PACIFIC SERVICE MAGAZINE





# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



NORTH BATTLE CREEK AT PLATEAU BRIDGE, NORTHERN POWER SYSTEM OF PACIFIC SERVICE

Vol.  
12

OCTOBER 1920

No.  
5



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# Pacific Service Magazine

Volume XII



Number 5

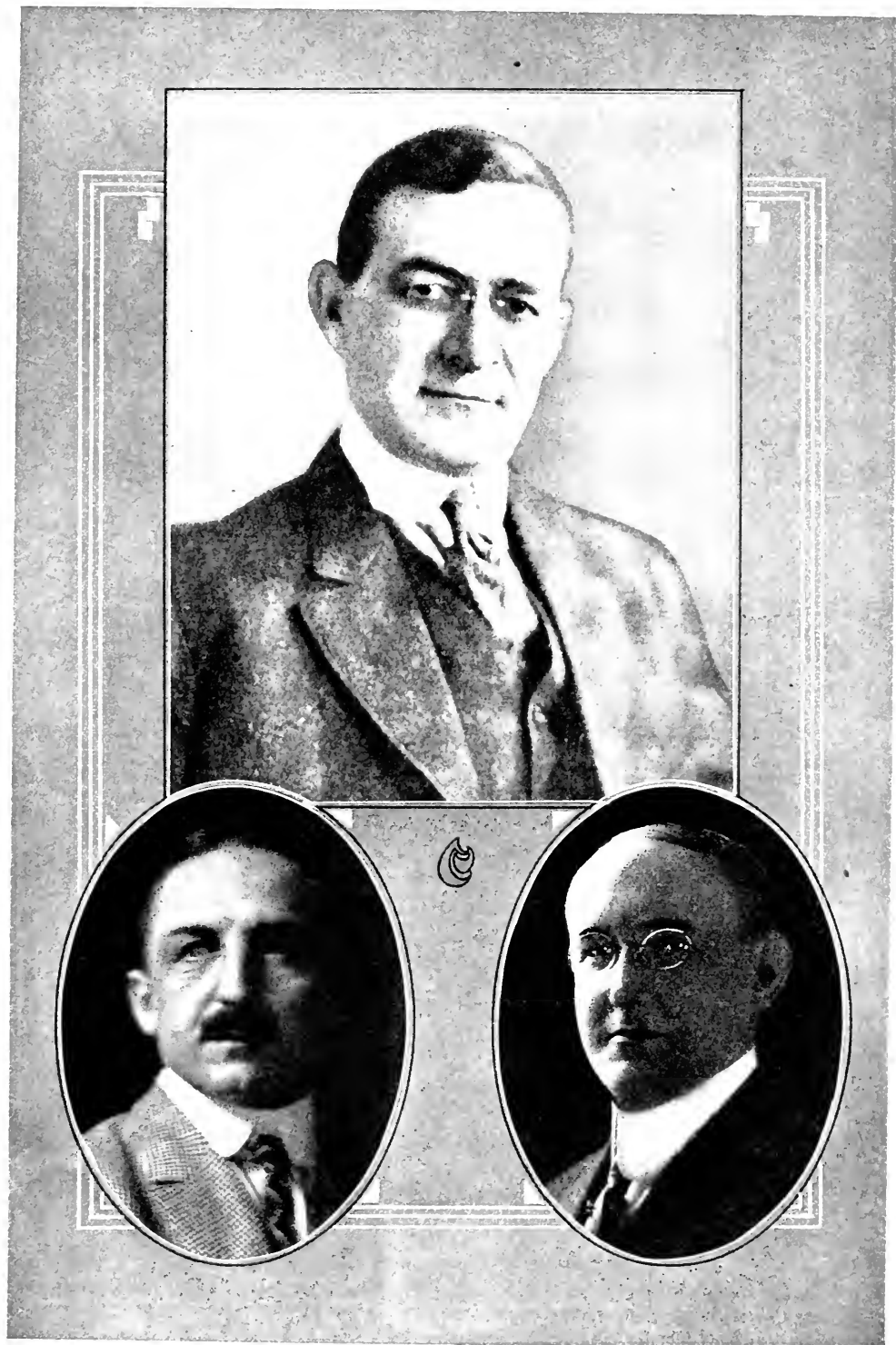
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Three men who played host at the Portland Gas Convention. The upper portrait is of Mr. Guy Talbot, president of the Portland Gas and Coke Company and chairman of the Entertainment Committee of the convention; at lower left is Mr. Hilmar Papst, general manager of the Portland Gas and Coke Company; at lower right Mr. W. M. Kapus, also of Portland, the new president of the Pacific Coast Gas Association.

## *Pacific Northwest Welcomes The Men of The Gas Industry*

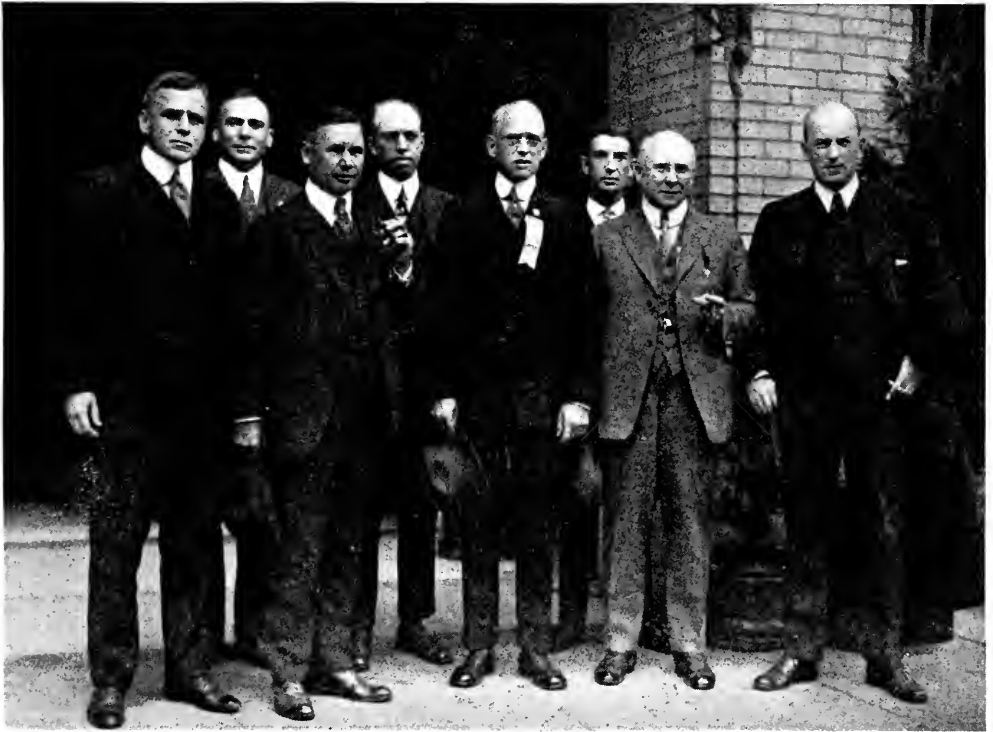
By FREDERICK S. MYRTLE.

FOR the first time since its inauguration in the early nineties, the Pacific Coast Gas Association has crossed the border-line of California to hold its annual convention. This year Portland, Oregon, was the chosen meeting place.

At the 1919 gathering in Los Angeles a most pressing invitation came from the Northwest, bearing the sponsorship of Mr. Guy Talbot, president of the Portland Gas and Coke Company, and other prominent men of the gas industry in that territory, promising the best of welcome and entertainment to all who might attend and offering further inducement in the way of additions to the association mem-

bership roll. In such cordial terms was the invitation extended that it could hardly fail of acceptance. The result more than justified expectations, and the Portland convention will go down in history as an unqualified success from every point of view.

There was a representative attendance at all business sessions, the papers presented were of unusual merit as well as diversified in character, the business transacted went farther than ever before in the direction of progress in every branch of the gas industry, and the hospitality was wonderful. To Mr. Guy Talbot, Mr. W. M. Kapus and all who worked



Group of prominent figures at the P. C. G. A. convention. Reading left to right: L. S. Ready, John D. Kuster, Harry Jackson, F. S. Wade, A. B. Day, W. S. Yard, Henry Bostwick, D. J. Young.

with those gentlemen to make the outing the complete success it was, we of the territory south and east of the Oregon borderline respectfully present our acknowledgments.

Under the able direction of Mr. Kapus visitors were comfortably housed at the leading hotels, where special rates had been provided. The majority were quartered at the Multnomah, where all business sessions were held. Members of the reception committee met all trains, and the spirit of welcome was in the air from the very beginning. On the opening day, Tuesday, September 21st, one hundred and thirty members answered roll call, and of these a trifle over one-half were registered from California. Six members journeyed from points east of the Rockies, and it was a pleasure to record the name of Mr. Grafis, editor of the *Gas Record*, who came clear across the continent to report the proceedings.

Needless to say, "Pacific Service" was well represented. Unfortunately, business engagements at home prevented Mr. John A. Britton's attendance and, also, that of our company's new president, Mr. Creed, who, however, testified his adherence to the cause by being enrolled a member of the association. Our indefatigable secretary, Mr. Henry Bostwick, was on hand and so were three past presidents of the association, Mr. John Clements, Mr. C. B. Babcock and Mr. John D. Kuster. President A. B. Day headed a delegation from south of Tehachapi.

A feature of the opening session was an

address of welcome by Mayor George L. Baker of Portland, known popularly as Portland's war mayor, and who recently served as a member of the Federal Street Railway Commission. Mr. Baker showed himself to be a citizen of no mean understanding of public affairs and his words of encouragement to public utility enterprise were heartily appreciated. Mr.

Baker's address was suitably responded to by Mr. C. B. Babcock.

The usual committee reports were presented at the opening session, among those heard from being the Publicity Committee, F. S. Myrtle, chairman; Membership Committee, W. M. Kapus and George Egleston, sectional chairmen; Public Policy Committee, C. O. G. Miller, chairman; Committee on Taxation and Legislation, Paul Overton, chairman; Committee on Piping of Buildings for Gas, H. M. Crawford, chairman; Committee on Papers and Meetings, C. B. Babcock, chairman; Committee on Technical Information, E. L. Hall,

chairman; Library Committee, W. M. Henderson, chairman. There were some features about these reports worthy of special mention. The report of Mr. Crawford's committee created a good deal of favorable comment, and a result worth recording was the creation of a fund for this committee to work upon, the idea being to disseminate all proper information and take all advisable steps to insure the co-operation of architects and builders generally in this very necessary feature of home and building construction.



Mr. Guy L. Talbot pleased with the success of his enterprise. Snapshot taken at the Crown Point chalet on Columbia River Highway.

This suggestion may or may not have been inspired by recent exhibitions of electrical homes in San Francisco, Oakland and elsewhere. However that may be, it is safe to say that this committee has work before it. One member of the association has gone so far as to suggest a fund reaching into the thousands, involving the hiring of field men for the purpose of carrying on the campaign of education. Of course a sum of this magnitude would have to be raised by public subscription among those most interested. Meanwhile, the association itself will provide sufficient means for propaganda work by circular and other written communications. It is not a question so much of advocating certain specific appliances as it is of showing the necessity for gas convenience outlets in buildings of all description.

Another important report was that of the Committee on Technical Information, said to be the first presented on this important subject. This, too, inspired the creation of a fund for the printing of loose-leaf handbooks and other data for use by all members of the association at call.

Mr. Henderson's report of the Library Committee brought out the necessity of a new catalogue. This was duly authorized and work upon it will commence without delay.

In connection with the report of the Papers and Meetings Committee was the announcement that by courtesy of the *Gas Record* and the C. B. Babcock Company all the papers to be presented at the

convention had been printed in advance for distribution among members attending the convention.

The report of the Public Policy Committee was directed mainly to making "service" the watchword of public utility enterprise. It was urged that the public would pay more, and cheerfully, for the product distributed to them if given first-

class service; that rates were not the only, nor even the first, consideration. The point was made that the very fact that the consumer could not change his utility as he could his butcher should entitle him to all the more personal consideration. Another point presented in the report was the awakening of interest among consumers and employees in public utility securities. The plan of disposing of securities at home, of which the Pacific Gas and Electric Company was the pioneer in California, was commended in the highest degree.

The report of the Committee on Member-

ship brought out the fact that the past twelve months had added eighty-three new members to the membership roll, which now stands at three hundred and forty-one active and fifty-six associate members. Cheers greeted the announcement of the election of the association's first lady member. The intrepid fair one is Miss Louise Aubert, in the employ of "Pacific Service" as chemist at the Potrero Gas Works.

President Day's address presented, in concise fashion, the record of the past twelve months, and from it augured a bright outlook for the future. Mr. Day



Mr. and Mrs. E. L. Hall and Miss Hartog on the porch at Crown Point chalet.

undoubtedly made a most capable, as well as active leader of our association. He was "on the job," so to speak, from the moment of his election to the concluding day of the convention, when he handed over the gavel to his successor.

At the second day's session we were honored with an address by Mr. E. V. Kuykendall, chairman of the Public Service Commission of the State of Washington. This regulating body has done much toward establishing cordial relations between the public utilities and the public they serve, while fully recognizing the rights of both. Mr. Kuykendall presented some telling points. So far as the public service was concerned, he thought, light was breaking through the clouds, and, while denouncing the political office seeker who seeks votes by condemning all public utilities, he thought such evil influence might be offset by the utilities in gaining the confidence of the people. His message, then, was:

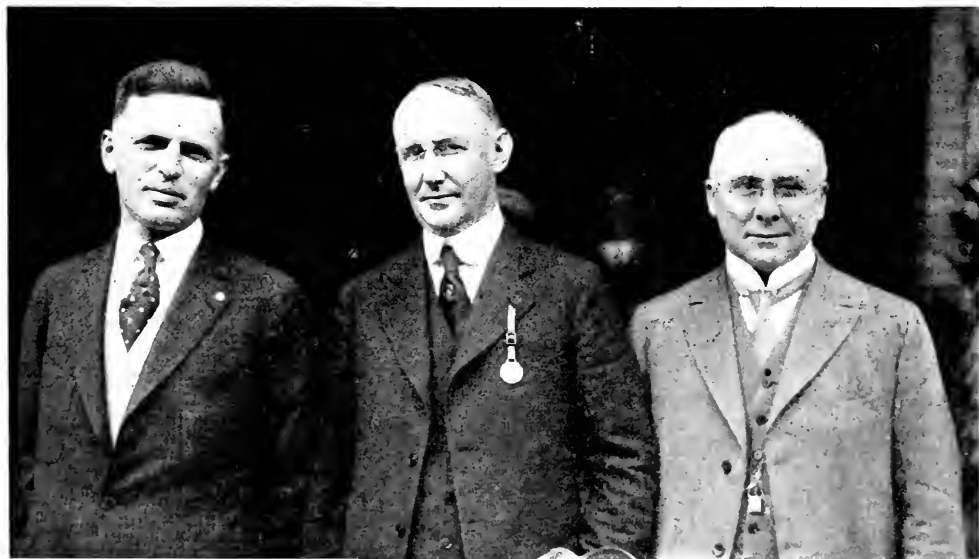
"Tell your story to the public through the press and all other available mediums. Practice courtesy and efficiency within and without. The American people are

generally fair; all they want is the truth. Give them the truth and your way lies clear before you."

Mr. Kuykendall's address made such an impression at the convention that it is worth while giving the following excerpt:

"I believe I am safe in saying that a new day is dawning upon the problems of the utilities of the United States. I believe that never before in the history of our country has there been such a close understanding, such co-operation existing between the public utilities and the public service commissions or regulatory bodies in general and the people of the United States. They are getting closer together; they are beginning to realize that the interests of one are the interests of the other; there is less friction between them and less ill will between the people and the utilities and against the regulatory bodies than formerly existed.

"The great majority of people affected have realized that the utilities' expenses, like their own, have expanded, compelling increased revenues. There are some, however, who cheerfully pay \$12 for a pair of shoes for which they formerly



The new P. C. G. A. administration. President Kapus in the center, Vice-President Bostwick at his left and Secretary Henderson at his right hand.

paid \$5, 50 cents for a beefsteak for which they formerly paid 20 cents, and who complain bitterly if the cost of a utility's commodity is increased 25 cents per month, and accuse the commission of favoritism toward the company if any increase whatever is allowed to meet growing wages and material prices. They seem to forget that the bulk of the expense in operating most utilities is labor, and that each member of the great army engaged in rendering public service is compelled to purchase the necessities of life at the same high cost that confront us all. In fact, increases have been permitted by this commission for the sole purpose of affording employes a living wage.

"We realize that it is not a popular thing to increase rates. It would be easy to deny such applications and pose dramatically as friends of the



The Association's first lady member, Miss Louise Aubert.

people, standing between them and corporate greed. We occupy a position of great responsibility. We have it in our power to bring ruin and disaster to many hundreds of utilities and rend the financial fabric of the State. It is very difficult now to secure capital for public service enterprise, and this commission by a rash stroke of the pen could make it impossible in the State of Washington. We have endeavored in these trying times to save legitimate investment in utility properties from ruin, preserve the necessary public service to the people, and, at the same time, be just and fair to the patrons who pay the price. If we should yield to the clamor of politicians, whose stock in

trade is reckless denunciation of public utilities and abuse of the commission for permitting them to live, the results would frighten even those irresponsible agitators."

Mr. Kuykendall closed with these words: "Let us hope the day is not far distant when you will be called upon to share in the prosperity you have helped to create."

The technical papers presented at the

convention are dealt with by a master hand elsewhere in this issue. The leading feature of general public interest was, of course, the discussion upon the B. T. U. standard investigation. It was opened with the report of the committee of the association affiliated with the Joint Committee on Efficiency and Economy of Gas of the California State Railroad Commission, under

whose direction the investigation is being held. Chairman F. S. Wade, in presenting the report, spoke of the standard which was fixed in California last year at 570 B. T. U. This, it was generally thought, was not the best standard for the efficient manufacture, distribution and use of gas. Tests were in progress, the San Jose plant of "Pacific Service" and the Santa Barbara plant of the Southern Counties Gas Company having been chosen for the purpose, as representative types of oil-gas manufacture. The tests will be in three series, 570, 525 and 480 B. T. U., respectively. Actual work on these had begun July 1st, and the only thing that stood in the way of successful



determination of the problem before the committee was the threatened shortage of oil, which might result in a reduction of the quality of the output.

Following Mr. Wade, a progress report was presented by Mr. E. S. Bryant, formerly of the California Commission, now field engineer under Mr. F. Emerson Hoar, the engineer in charge of the investigation. Mr. Bryant was followed by Mr. L. S. Ready, chairman of the Joint Committee, who detailed the work done at San Jose and Santa Barbara. At San Jose, where the two-shell type of generator was used, experiments were made at 572 B. T. U. At Santa Barbara, where the single shell or "straight shot" generator was installed, the experiments were made at 566 B. T. U. Notice was taken of the oil, steam and water used, length of runs, specific gravity, air quantity, and all essential features of gas manufacture.

Extensive preparations had been made for these tests. Oil storage tanks had been recalibrated, log sheets in use compared against the new measurements, capacity tables of the gas-holders verified, check tests made of the registration of station meters under various conditions and rate of flow, new indicating and record instruments installed. Laboratory tests were taken on gas samples, a laboratory and calorimeter room being installed at each plant. Calorimeter observations were taken three times daily, the average being accepted as the heating value of the gas manufactured during the day. Tests were taken of naphthalene content, sulphuretted hydrogen and total sulphur. Oil analyses and distillation tests were made, also test runs to determine the quantity and composition of the by-products collected.

Speaking generally on the investigation, Mr. Ready said that the main problem to be solved was what heating value of gas would give the consumer the most for his money as regarded service in its broadest sense. Where the public was concerned quality of service came first, the size of

the gas bill next. "It does not appeal to the user of gas to tell him that within certain limits he can obtain as great a flame temperature with a low quality of gas as with a high one, provided his appliance is properly adjusted," declared Mr. Ready. The investigation would not be complete, he said, without practical tests on fuel efficiency by actually cooking meals on modern ranges and by practical demonstration of water heaters, room heaters and industrial appliances.

A most valuable addition to the store of information gathered at this session was a paper presented by Mr. George E. Whitwell, professor of chemistry at the University of Washington. It was entitled "The Necessity of Lower B. T. U. Standards for Illuminating Gas in the United States." In this Mr. Whitwell declared it to be the universal object to serve gas at sufficient thermal value, void of injurious constituents and at sufficient quantity to supply the demand; the prime object, of course, being "service." Experiments in England, Canada and British Columbia had shown that the adoption of a lower standard of B. T. U. content had brought little complaint from users. Air, as a rule, cut a bigger figure than gas. Experience showed, also, that lower heat values did not always bring higher consumption. Mr. John Keillor, at Vancouver, B. C., had reported great success with gas at 450 B. T. U. and now he expected to go down as low as 375. The United States Bureau of Standards favored a modification of standards on the ground that a high B. T. U. standard meant inefficiency. The bureau had experimented at gas between 525 and 585 B. T. U. and had reached the conclusion that where substantial economies resulted the public received good service at even lower standards. Similar tests had been made in the State of Massachusetts by three separate companies at varied standards. Mr. Whitwell thought that irregular pressure and the use of poor appliances were the main cause of

complaints and not the reduction of thermal values.

Mr. D. J. Young of Tacoma dwelt on the successful result of experiments in his city on gas manufactured at 460 B. T. U.

In closing the discussion, Mr. Ready agreed that it might be advisable to reduce present standards, but declared that the authorities were not at one on the subject. As before stated, Mr. Ready feared a reduction in the quality of oil, which might bring about an entire change of program in the investigation.

The closing feature of the convention was the election of officers for the ensuing twelvemonth. This year some important changes were noted. The interest manifested by the Pacific Northwest in the association caused eyes to turn in that direction, and the result was the election to the presidency of Mr. W. M. Kapus of Portland. To the post of vice-president was elected Mr. Henry Bostwick, who retired from the office of secretary and treasurer after an unremitting service of seven long years. To Mr. Bostwick's place was elected Mr. W. M. Henderson, also of "Pacific Service," who for years has been a hard working member of the association and has added valuable data to its records. The new directors are Messrs: John A. Britton, San Francisco; Guy Talbot, Portland; W. B. Cline, Los Angeles; H. R. Basford, San Francisco; L. H. Newbert, Oakland; Hilmar Papst, Portland; F. R. Bain, Los Angeles.

On Thursday evening, at the Multnomah Hotel, the annual banquet was held, at which Mr. Guy Talbot enacted the role of toastmaster. Mayor Baker was an honored guest and contributed most worthily to the speech-making program. Among those who addressed the gathering were the retiring president, Mr. A. B. Day, Messrs. H. R. Basford, Henry Bostwick, W. M. Henderson, L. S. Ready, F. S. Myrtle, C. B. Babcock, D. J. Young and John A. Lang.

During the entire week the Committee of Entertainment, Guy Talbot, chairman,

kept things going with a will, and this despite the eccentricities of the northwest climate, which put at least an external damper upon things. For the men there were luncheons, golf matches, drives and dances. On Wednesday of convention week the members were taken out in automobiles to the Portland Gas and Coke Company's gas works, where luncheon was served, and here General Manager Hilmar Papst and Chief Engineer E. L. Hall had the opportunity of showing the gas men of California about as fine an exhibit in the way of modern plant and methods as can be found anywhere.

The plant occupies a tract of about forty acres six miles below the city on the main line of the Northern Pacific Railroad. It is spick and span in every particular. The concrete buildings, specially designed as to architecture as well as convenience, offices, generator building, meter house, compressor room; everything orderly and efficient. Even the lampblack deposits were not too unsightly. Incidentally, the company makes money out of that lampblack, for it sells briquettes to the citizens at \$14 a ton. Attractive grass plots lie between the buildings and the whole presents a really pleasing as well as imposing appearance.

Our lady visitors, and they were many, were not overlooked, for a special committee, under Mrs. Guy Talbot, saw to it that the hours did not drag. The crowning glory was the annual outing on Friday, which took place on the Columbia River Highway. All the mists that the unpropitious weather god sent down upon that glorious scene failed to conceal its beauty, and at the afternoon luncheon at Mrs. Henderson's Crown Point chalet as happy a gathering of mortals feasted and danced as had ever before assembled under the auspices of the P. C. G. A.

The association's program of activities for the ensuing twelvemonth includes sectional gatherings at Los Angeles, San Francisco and Portland. The annual convention has been set for Sacramento in September.

# A Review of The Papers Presented

By W. M. HENDERSON, Secretary of the Association

The program prepared by the Papers Committee was diversified. Practically every phase of the gas industry of interest at this moment was given attention. No particular subject was featured, production, distribution, commercial, industrial and accounting all had their opportunity. The list of papers presented follows:

The Use of Gas-Fired Boilers and Furnaces for Domestic and Commercial Heating.—C. M. Grow.

Policy of the Management in the Sales of Gas.—D. J. Young.

Advertising the Gas Business.—J. H. Hartog.

Advantages of Gas Fuel in the Heat Treatment of Metals.—R. G. Logue.

Temperature and Pressure—Their Measurement and Control in Gas Manufacture.—S. S. Amdursky.

The Use of Governors and Regulators in Gas Distribution.—W. M. Henderson.

Production, Transmission and Distribution of Natural Gas.—A. B. Macbeth.

Standardization of Procedure and Records in the Service of Gas Consumers.—W. H. Barton.

Oil Gas.—W. S. Yard.

Necessity for Lower B. T. U. Standard for Domestic Gas in the United States.—Prof. G. E. Whitwell.

Mr. C. M. Grow of Los Angeles presented a paper on the subject that is receiving increased attention in the commercial gas field. The use of gas for steam-raising in boilers has been stimulated somewhat during the last few years by the shortage of other forms of fuel. Particularly is this the case where steam and hot water are used for house warming. No fuel lends itself so readily as gas for this purpose. Hotels, apartment houses and even residents are swamping the local gas companies for such installations. Mr. Grow in his paper reviews the various installations that he has had experience with in the vicinity of Los Angeles. In this way he gives some excellent tips to gas company salesmen on the types of installations to be made for various purposes and the operating results to be obtained. The description of these various installations, which cover all classes of industrials and the costs of operation of the installations made, gives the paper its real value. It is as good as a catechism for it answers every question the salesman might ask on this subject.

The paper presented on "Policy in the Sale of Gas," by D. J. Young, was prepared with a view of presenting the views of the executive or manager of a gas company on this subject. Mr. Young is well fitted to express the views of the execu-

tive and in a short paper it put over the fundamentals in very good order.

His first plea was to stimulate the *esprit de corps* in the gas company. His second dealt with the question of rates, and here word was said for more liberty on this subject. A suggestion in this respect was that the company establish its rates or prices and these be subject to review by the State regulating body, rather than as it now is determined and fixed by such regulating commissions. As a third strike he pointed out the value of public confidence in the local gas company. Honest dealing with the public, plenty of publicity on all subjects concerning the company of interest to the public will produce this atmosphere. As a final, the time-honored subject, "Dealer versus Gas Company," concluded his paper. This is a mooted question. Mr. Young recognizes it as such, but observes that sale of appliances, either actual or the policy, should be directly controlled by the company.

The paper on "Advertising," by Mr. J. H. Hartog of Portland, registered great interest. This was evident by the extensive discussions that it produced. Mr. Hartog gave a thought to the whole merchandising world and not alone the gas industry, particularly so when he presented the idea that "until a thing is 100 per cent known or sold it requires the service of an advertising policy." As gas is in this category, the paper diagnoses its case. Its merits and good qualities are shown, the degree to which the people are aware of same and the extent of education advisable, all presented by the author. It is a paper of merit and constructive thought that will profit any gas company man to obtain and read.

Mr. R. C. Logue's paper, "Gas Used in Heat Treatment of Metals," created the interest that such a subject always does. This feature of the gas industry is expanding constantly and every community is now experiencing more or less demand for information on this subject. It is surprising what an advantage gas has over other sources of fuel when it enters this field. Mr. Logue, who is well qualified to review the subject, presents the case for

gas in a most interesting manner. In this paper the whole subject of heat treatment of metals is reviewed and the mutual value to consumer and the gas company well brought out. The merits of gas are well known, but when introduced into an industrial shop they take on a new aspect. It is not alone the uniform quality or service, or the convenience in use, nor the price, which when all things are considered gives gas an advantage, but it is the actual results that the metal worker obtains that renders the final judgment. With gas a consistent quality of product can be produced. Treatment of metals under varying atmospheres is possible, a condition hertofore regarded as impossible. The reducing atmosphere, a neutral or an oxidizing atmosphere, are all within the control of the operator. These characteristics of gas fuel are such as to establish it in this field without a competitor.

In the industrial field gas can seek its greatest development. It will here rival the domestic use of gas. Mr. Logue appreciates this fact and makes it clear in his paper. It is a class of business that is most desirable in its nature, as it tends to iron out the peaks, and gas companies will do well to recognize its merits and encourage its development.

A paper on an original subject was presented by Mr. S. S. Amdursky on "Temperature and Pressure Measurement and Control." In this day of high efficiency and conservation of resources such a topic as this is of considerable value. The "rule of thumb" and "cut and try" practice that was the vogue in the past can no longer compete with the standards that are demanded today in gas production. This paper deals with all classes of instruments useful in gas manufacture and by-product removal. The thermometer, pyrometer, recording gauges, temperature and pressure, laboratory instruments and boiler plant equipment all come in for a description. The use and value realized from such use is presented, and on the whole a most interesting paper was prepared. The plant operator will do well to review the contents and note some of the very excellent suggestions made for his benefit.

The subject of gas distribution was presented to the Association in the paper of Mr. W. M. Henderson on "The Use of Governors and Regulators in Gas Distribution." This paper was a presentation

of experiences that the writer has observed in distribution practice. It deals mostly with the system that exists in San Francisco, but gives many tips and suggestions both in the operation and installation of governors that can be successfully adapted elsewhere. The illustrations accompanying the paper show graphically what can be obtained in pressure control by proper operation of governors in conjunction with station boosters. The paper for its practicable suggestions was considered of sufficient merit to warrant the presentation of the gold medal award to its author.

The natural gas phase of our industry received its inning with the paper prepared by Mr. A. B. Macbeth, manager of the Southern California Gas Company. A review of conditions existing in the fields of California and a description of the apparatus used both in production and the extraction of by-products made a most interesting paper. Too few of us are acquainted with this branch of our business, yet it represents fully half of the gas consumed in California. The paper concluded with a discussion on rates and a plea for a more equitable adjustment of same. This with a view of stimulating conservation or, rather, restriction of its use to certain classes of business. Mr. Macbeth was well fitted to present the subject to the members, for he has had extensive experience in eastern natural gas fields and well knows the situation that has developed there from cheap gas unrestricted. California should profit by such results and Mr. Macbeth is doing well to preach a policy of sense and sanity.

The office organization was entertained by the presentation of a paper on "Standardization of Procedure and Records in the Service of Gas to Consumers," by Mr. W. H. Barton, office manager of the Portland Gas and Coke Company. This is a subject that needs some action as is evident by the facts brought out in the paper. The author made a study of practice followed by various companies and found a diversity of forms and procedure. He presented a paper accompanied by an excellent exhibit of various forms and then traced the service of each. In this way he showed the method of handling the prospective consumer from time of receiving application until the account was opened and the first month's bill presented. Mr. Barton's criticisms of various practices were all constructive, for in

each case where various forms were discussed he showed their shortcomings by stating what good practice required. His paper was timely, valuable and useful. That the membership realizes this is evident by a committee on accounting resulting from the discussion brought forth. Something in the way of uniformity in the use of tags, it is hoped, will result.

One of the closing papers presented at the meeting proved the most interesting. Mr. W. S. Yard, engineer of gas operation of the Pacific Gas and Electric Company, read a paper on "What Oil Gas Is Doing Today." Mr. Yard not only handled the subject well but the subject of oil is of such pressing interest to the oil gas industry today that the convention would not have been complete without some discussion on the subject. The paper deals with the operation of a large oil gas works and illustrates what can be done in the way of economical operation. A good description of the equipment installed and its operation, as well as figures and tables which will prove of value to all men engaged in the production end of the oil gas industry. A review of the oil supply situation was not neglected. This is a vital subject to the industry at this moment, and Mr. Yard is in touch with the situation. He concluded with a statement of experiments that have been made with a view of using a residuum of lower grade than has heretofore been attempted. The situation, as bad as it appears, is not beyond solution, and such men as Mr. Yard are well qualified to solve the problem as long as oil is available.

A subject that has attracted the attention of the gas fraternity at large and today as the most pertinent problem before it is the question of what is the proper calorific value at which gas is to be distributed. This subject was not neglected at Portland. The Pacific Coast Gas Association has a committee working on this problem and in conjunction with the State Railroad Commission of California has a paid organization doing actual field work and testing to determine the answer to this problem. The committee made its report on test results to date. Such tests have been confined to plant operation, and though considerable work has been done the first stages of the test have not yet been completed. No deductions are as yet available, as it is the plan of the committee to gather all the facts and then by comparison render a decision. The report presented by Mr. F. S. Wade, chair-

man of the Association committee on this work, and by Mr. E. S. Bryant of the Joint Committee, who is in charge of field tests, covered the ground to date, as well as presented the program of the committee. It is the plan to carry on work at the two plants in California, observing all operation conditions at the works and utilization of the gas on the consumer's premises as well as actual laboratory experiments with gas of 570, 525 and 475 B. T. U. value. This plan will no doubt accomplish the results desired and possibly settle the issue for all times.

A very interesting addition to this subject was presented at the meeting in the form of a paper by Prof. G. E. Whitwell. The title of his paper was "The Necessity for Lower B. T. U. Standards for Illuminating Gas in the United States." Mr. Whitwell reviewed this interesting topic in a very comprehensive manner and presented the facts from the first inception of the matter down to date. His paper is an excellent reference of all that has gone before in the way of experiments both in this and other countries. It contains:

1—A brief historical review of the changes in gas quality in Great Britain, Canada and the United States.

2—The fundamental advantages to be obtained by a reduction.

3—Experiments that have been and are now going on with lower thermal gas quality.

4—Changing of gas quality and its effect with illustrations of results.

5—The effect of decreasing the thermal value upon manufacture and domestic consumer. With a detail of the results in Canada.

6—The future gas industry in the United States with respect to this question.

In all Mr. Whitwell's paper was a contribution to our association and the gas world and cannot help but produce appreciation. Coming as it did and presented at such a time when the whole of the industry is keyed for the very latest development, it was a most valuable contribution to the data and facts that the committee is assembling.

This completes the review of the papers. Without doubt the best collection ever presented. Discussion brought out many points that the authors neglected, with the result that our proceedings are enriched with a collection of papers, discussions and experiences that will be difficult to duplicate.

## *Oakland Electrical Home Delights Thousands*

By F. J. SOUTHERLAND, Commercial Department, Oakland.

The thing most apparent to visitors to Oakland's "Modern Home Electrical" was that it is a real home. Every room was completely furnished, each in a distinct style of furniture, even to the beds, which were equipped with snow-white linen and dainty spreads. It appealed to the public as a specimen home complete in every detail for comfort, convenience and practical artistic taste. Close to thirty thousand visitors passed through the home during the period, which speaks for its popularity. People went to get ideas; ideas to apply in their own homes; possibly for the home they hoped to build; or went just for entertainment. There was no suggestion of it being an advertising project, yet such it was, pure and simple. The idea was novel in conception and cleverly put over in results. The idea was this:

The electrical people wanted to impress upon the householder the value of

having electrical conveniences in every room. Convenient places to attach electrical appliances, outlets for electrical connections, plug receptacles. So a newly finished home in a new tract was selected. The wiring was laid out and superintended through the California Electrical Co-operative Campaign Association. This represents electrical utilities, jobbers, dealers and contractors. The house was furnished by local firms, dry goods houses, furniture dealers, decorators, etc. Everyone had something to sell, but goods sold themselves, no names or prices were in evidence. The goods created a demand. The merchant was willing to take his chances in the share of business coming to him.

The firm promoting the tract, the Walter H. Leimert Company, paid two-thirds of the advertising occupying large space in local papers and in San Francisco



dailies. The advertising of the home as being on exhibition only as the Modern Electric Home was featured several days before the opening date. The East Bay Electric Trades Association recruited high-class men from the jobbers and dealers as hosts. A man or two was stationed in each room to fully explain the electrical advantages.

The home was open from 10 A. M. to 10 P. M. The first day there was the astounding attendance of 2500. This was by actual ticker count by the host at the door. That night the thoroughfare was so blocked by automobiles that the police were called upon for traffic officers. People blocked the doorway awaiting their turn to enter. Fortunately the approaches were well illuminated. The home was flood-lighted by two reflectors located on a pole on the opposite side of the street, so there was a daylight effect. The main thoroughfare leading to the home was festooned with stringers of electric light. There was a "white way" to the "Home Electrical." Situated as it was in a beautiful residence park, Lakeshore Highlands, the first impression as one approached was that it certainly was a desirable place to live in. The impression strengthened as one went from room to room, each a study by itself in decoration, color, harmony, furnishings and electric conveniences adaptable to that particular room. The interest and animation which the crowds showed bore testimony to this. Think of entertaining 4600 people of a Sunday in your own home of seven rooms. Such was the record August 29th.

Let us go through the home. The living room with deeply cushioned chairs and davenport invite the visitor to pause and enjoy the music of the sweet-toned Victrola or the reproducing player piano. One does not realize he is listening to the highest priced instruments, the Victrola costing close to \$1000 and the piano \$3600; he simply realizes it is something fine. Both are electrically operated. The lighting fixtures are simple in design, wall brackets, with modest shades combining a pleasing appearance with a scientifically correct quantity and distribution of light. Eye comfort has been given the attention it well deserves.

The dining room has the well known electrical toaster, percolator, grills, etc., and shows a perfectly appointed dining room table. It is noticed that the cords

to the appliances are attached to a four-way receptacle just under the edge of the table so that no inconvenient cords dangle from the lighting bowl above. The breakfast room is furnished in wicker, a neat cozy little room that caused a general exclamation of delight. The little wife may sit at the table and cook a dainty, substantial breakfast without leaving the table. It's the electrical way. In the kitchen is the electric range, which makes cooking a pleasure. Then there is the electrical dishwasher, which eliminates the drudgery of the kitchen. Egg beater and table silver polisher are among the conveniences. The sleeping rooms upstairs have novel lighting conveniences, such as lights in the closets which light upon opening the door and extinguish upon closing. Reflector lights are on each side of the mirrors to give intense illumination. Then, the shaving mirror and its light appealed to the man. We said the house was furnished. There was one room not furnished. That was the servants' room. Because, as explained, the Home Electrical needs *no* servant. The laundry is provided with washing machine, clothes dryer, ironer or mangle, and electric irons. Then in the garage is an ice-making machine, small, simple and compact. The attendants, or hosts, explained that there was but one make of each device; that did not mean it was the best, but one of a standard. There was no desire to duplicate as there were so many makes to select from. All manufacturers were represented as an entirety, which made a happy variety and did not detract as an exhibit, which would have been the case had two or three makes been in evidence. In other words, it represented a home, and not a museum or salesroom of appliances.

The opening day was marked by appropriate ceremonies for especially invited guests. The publicity from person to person was probably more attractive than the newspaper ads inviting inspection. There were salesmen on the tract, but they were sought by the visitors and no evidence of solicitation. Likewise, the Pacific Gas and Electric Company featured the opportunity to visit a practical modern electrically equipped home. The untiring work of those in charge representing the electrical interests as hosts and hostesses made this a novel and remarkable success.

## Journalists' Day at The Electrical Development League

The Electric Development League of San Francisco gave a luncheon September 13th at which the publishers and editors of the leading journals of San Francisco, Oakland and the bay region were guests of honor. The occasion was called journalists' day, the idea being to bring the newspapers into touch with the electrical men and from this contact to inspire a more complete understanding of the problems which are being solved daily in the progress of what is now universally recognized as the great twentieth century developer.

There was an excellent attendance, including men of all branches of the industry. Mr. E. O. Shreve, of the General Electric Company, presided and had the guests of honor, with their escorts, at the speakers' table.

There were but two speakers. Mr. Robert Sibley of the *Journal of Electricity* led off with a masterly talk upon the hydro-electric development of today. He told of the strides made in this industry since its inauguration just twenty-five years ago, and he pointed out that in all phases of this the Pacific Coast had easily led the rest of the country, although possessing but eight per cent of the total population. The natural resources of our wonderland of the west were almost illimitable, and, while fully realizing the tremendous problems, mostly financial, that would have to be solved before full advantage could be taken of these resources, he felt that the onward march would be rapid and sure. Mr. Sibley presented facts and figures with the aid of well-prepared charts, and the impression he left upon the guests of the occasion, as evidenced by the opinions openly expressed, was that he had spoken wisely and as one possessing intimate knowledge of his subject.

Mr. Chas. K. Field, of *Sunset Magazine*, responded for the guests of honor. He regarded it as directly to the interest of western journalism to help along the cause of electrical development, the most important phase of domestic and industrial life. At the conclusion of a graceful address Mr. Field said:

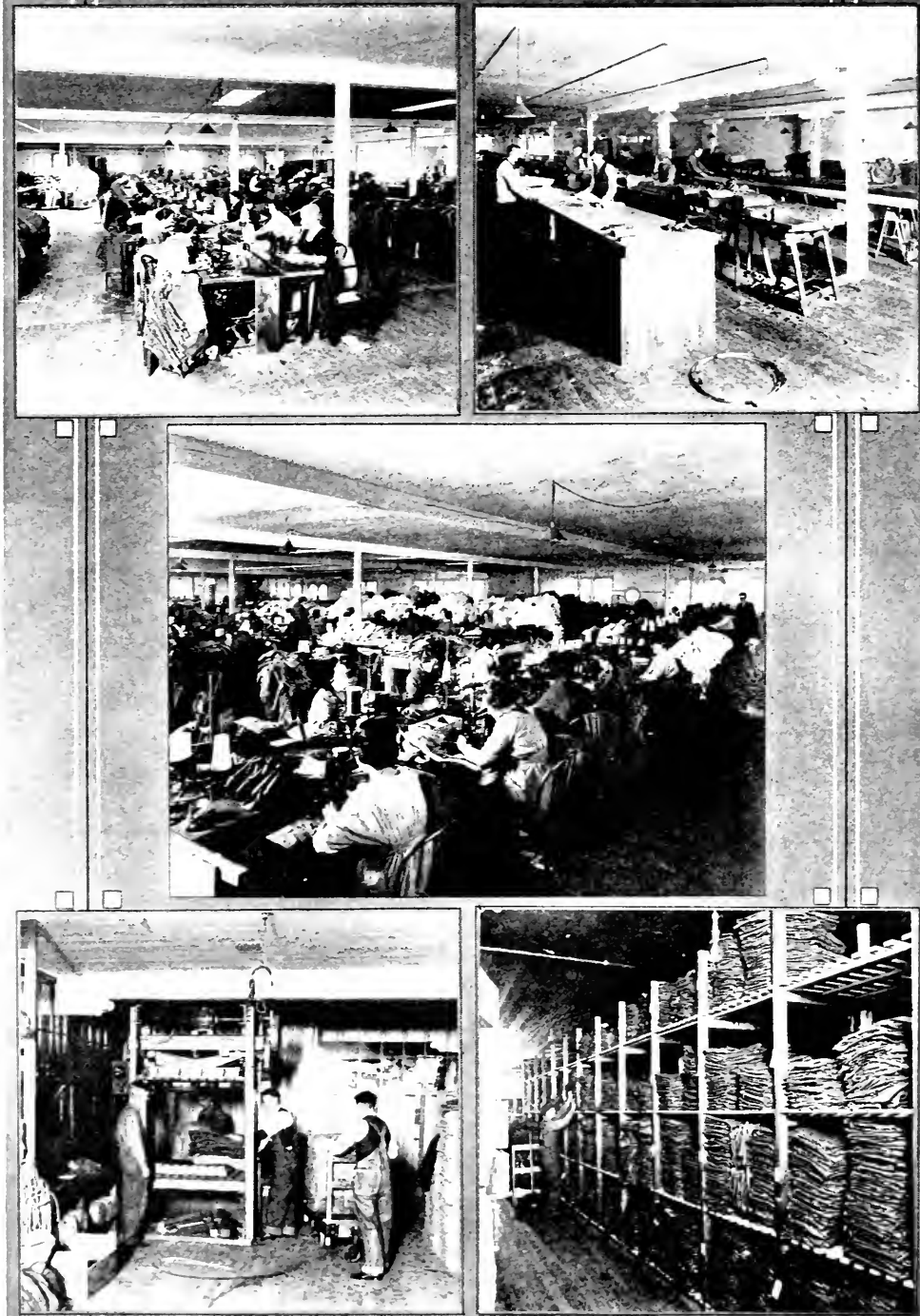
"There is a vision which we of the West should have, as a matter of course.

It is the vision of a civilization based on the use of water between the Sierras and the sea. Ours is the age of metals. We need to be reminded that our civilization rests upon a given deposit, a fixed quantity, a basic supply that is not reproducing itself. There is no love among the metals; there are no weddings in the mineral kingdom; there are no births of the precious things upon which our civilization rests.

"In one respect this difficulty may be obviated more easily by us of Western America than by most of these who share our metallic civilization. Fuel oil is a mineral. Look fifty years ahead to the day when California and Texas oil will probably bring five dollars instead of a dollar and a half at the well. This oil is now the chief resource of power in the Far West. It won't last forever, and there is very little coal to be developed.

"To go back to our figure of speech. There is race suicide among the metals, but there is none in the kingdom of water and the things that function with it. The young trees are springing at the feet of the forest giants in the mountains; the sun's rays wed the waters of the sea and their cloud-children float away to the peaks of the Sierras and flutter down in snowflakes and melt into mountain streams, seeping through the forest carpet, and the process is forever. Only nature has left one thing for man to do, the mere act of interrupting the headlong return of those cloud-children down through the canyons and valleys to their mother, the sea. Man has learned how to do it; it is now only a matter of money. Surely if human organization can raise and spend billions upon co-operative destruction, it will some day learn how to provide some of them for co-operative construction. And some day another Walt Whitman will rise up and do justice to the melting snowflake. He will sing of the double service in the mystical round of this eternal process of our Western civilization of water, where the invisible juice is drawn from the falling torrent, only to meet its mother stream again, far down in the fat and fertile valley, and join with it in its blessed ministry to the needs and the achievements of men."





Views of the Hamilton-Carhartt Cotton Mills, in San Francisco, where "Pacific Service" helps the over-all industry.

## Overalls To Go Over All

By F. S. GRAY, Superintendent Electric Sales Bureau, San Francisco District.

In this day of H. C. L. and agitation for the reduction in the price of clothing, it is easy to understand that both from the viewpoint of increased production and from the humanizing of industry how important lighting and the best application of electric power has become. But it may not be quite so easy to appreciate the immense amounts which are expended in modern factories where the cost of production is based largely on the amount produced, and the amount produced depending largely upon the modern working conditions under which the workman has to carry on his work, as in the garment making trade.

It is well for the public to know that there has been located in our midst a branch of one of the largest overall manufacturers in the world, the Hamilton-Carhartt Cotton Mills, located at 905 Golden Gate Avenue. When the San Francisco branch of the Hamilton-Carhartt Cotton Mills moved to enlarge their plant sufficiently to put eighty electric-driven sewing machines on one floor they saw to it that their entire floor was skylighted so that each machine had direct light without sunshine. In this room all four sides are glazed to the extent of nearly 90 per cent of the wall space. The plant officials considered this necessary so that each machine might be perfectly lighted as if they were out of doors. Even in sunny California the sun doesn't shine all of the time.

The only substitute they could find for this perfect natural light was the installation of a 100-watt Mazda lamp over each machine, and both operators and superintendent state that the work done during hours when artificial light is used is as great in amount and as well executed as that done under natural light and with as little effort.

This plant employs 120 people and has a daily output of 110 dozen pairs of overalls. It might be thought that the vibration resulting from the combined operation of eighty electric-driven ma-

chines would practically deafen the people in the room. To the contrary, conversation can be carried on in an ordinary tone of voice from one operator to the other without great effort. On the floor below are the offices of the Company, and with all eighty machines running there is only a slight rumbling to be heard, in spite of the fact that the floors are not deadened.

This may be considered one of the greatest achievements in lighting and machine operation which "Pacific Service" has ever had the pleasure of supplying.

These people grow their own cotton, weave their own cloth and do their own manufacturing. In other words, they build their overalls from the ground up, and their combined output is 5,000,000 pairs of overalls yearly, using over 25,000 miles of cloth annually, or enough to go around the world once. Mr. E. A. Hill, secretary and general manager of the Hamilton-Carhartt Cotton Mills, states that the individual motor drive as against the old shaft drive method, together with the perfect daylight system achieved by proper lighting through the installation of Mazda lamps has effected a saving of approximately \$12,000 a year throughout their system.

They find that the goods produced during such hours when artificial light is used are, contrary to their expectations, as nearly perfect as were those produced under natural light. Too much cannot be said regarding the efficiency of electric power, and the factory people say their record of four years shows that only one-tenth of one per cent of the Carhartt overalls ever come back. In other words, one pair out of every 1000 is returned because of some defect in workmanship or material.

The Hamilton-Carhartt has eleven factories throughout the United States and has used all kinds of power, but now has definitely decided in favor of the electric motor drive.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

Following the usual intermission during vacation period, our Association resumed activities with a gathering at the Sorosis Club, San Francisco, on the evening of September 14th.

This meeting held special interest by reason of an announcement that our company's new president, Mr. Creed, would be on hand to meet with and address the men and women of "Pacific Service." It was also understood that Mr. Frank A. Leach, Jr., the new assistant general manager, would make his appearance upon the platform. It was not surprising, therefore, that the curtain rose upon a gathering thoroughly representative of our company in all its branches and departments within reach of headquarters.

Of course, Mr. John A. Britton was on hand, and it was good to hear Mr. Frank Leach tell his audience of the pride he and all around him felt in the man who had set the pace, so to speak, in making the public service something in which "service" was actually the first consideration. Mr. Leach talked of service as he talked of courtesy, and he made the announcement that, so far as within him lay the power, he would establish, within and without, for our company's organization a clean record for courtesy. He asked all within the sound of his voice to help him establish this record, and the cheers which greeted the announcement furnished the answer.

The speakers of the evening were introduced by Chairman Earl Fisher.

Mr. Leach's talk was a happy prelude to Mr. Creed's. Our new president told, in enthusiastic terms, how, during the brief period that had elapsed since his election to the post of chief executive, he had explored all the "Pacific Service" territory, uphill, down dale, across dams, rivers, ditches, bridges, seeing every phase of the company's system and, what is more, mentally absorbing what he saw. Of course, he had been up to the Pit River region and he told how he had stood at the point where the Fall River flows into the Pit and had translated its

discharge of 1500 cubic feet per second into terms of water supply. "I found that thirty days' flow would be enough to supply all San Francisco and the bay cities for a twelvemonth and leave a surplus," said Mr. Creed, with emphasis.

Then he addressed himself to the men and women before him on their personal relationship to the organization. "I am interested in you," he said. "Our company's physical properties mean nothing without you, for the success of the enterprise is made up from the composite action of every individual member." Mr. Creed thought men and women should lead abundant lives and full lives; that their work meant more to them and the cause they served if they did so.

The problem of public relations, thought Mr. Creed, was the most important feature in the public utility business, and here he paid tribute to the man who, as far back as twenty years ago, when the speaker was a boy, was doing the very things that other men had since begun to do; who was the pioneer of the movement to make the public service what its name implied. Everyone there knew, of course, that Mr. Creed referred to Mr. Britton, and when Mr. Britton's name came out there was a demonstration.

Mr. Creed traced the history of the public service in California through three stages; first, the early development when there was no regulation and franchises in general order; second, when local regulation stepped in, with the result that franchises were stricter, development curtailed, and utilities became the beneficiaries, as well as the victims of local politics; third, the era of state-wide regulation, which at first meant regulation downward, but which had been followed by an upward trend because of economic conditions, over which the regulating bodies had no control, which had compelled that upward course.

Now, a fourth stage loomed through the mist of the future; namely, municipal ownership. "Who shall decide whether or not we proceed to that fourth stage?"

asked Mr. Creed, himself furnishing the answer, "Public opinion." How important then it was for the men and women of a great organization like "Pacific Service" to maintain those relations with the public out of which will come the favorable public opinion so eminently to be desired. "Let that thought stimulate you," urged Mr. Creed.

Mr. Creed's address made a deep impression, evidenced not so much by the applause which followed it as by the earnest attitude with which his audience received it.

Mr. Britton followed by a short address upon loyalty, a quality which, he said, did not lie merely in obedience to orders but was something which meant loyal service by night as well as by day, out of as well as during office hours, carrying with it an abiding confidence in the organization as a whole and in every integral part of it.

For himself Mr. Britton said he was proud to be regarded as the dean of the public service profession in California, and he smiled through his tears as he met a sympathetic response in the eyes of all before him.

The speaking was interspersed with entertainment. Mr. Eugene McCann of the San Francisco district, performed the role of announcer and introduced a new performer, Mr. A. F. Seligman, of the gas distribution department, who sang very acceptably. We were also treated to a series of motion pictures taken by our "Safety First" engineer, Mr. V. R. Hughes. Among the views flashed upon the screen were the outings at Lake Spaulding, De Sabla and San Jose, Potrero gas works and steam-electric station, the Oakland plant and San Francisco headquarters.

This San Francisco meeting was made the occasion of a general contribution on the part of the Association membership of books to the library. Librarian Henderson announces that no less than one hundred and eight books were gathered in.

F. S. M.

Under the auspices of the Marin-Sonoma and Santa Rosa districts a most enjoyable gathering was held at Larkspur Saturday, October 2d.

The affair was less formal than most of our Association outings, for the reason that it consisted entirely of an open-air dance on the municipal platform, which,

during the summer season, is one of the main attractions of Larkspur and vicinity; nevertheless, it "caught on" to such an extent that it is recorded among the successes of the year.

The weather was glorious, the moon was shining and about a hundred couples gathered at the place of entertainment and footed it right merrily to the music of an energetic jazz orchestra. The outing went far to show why so many young men and women who work for a living hie them to the Marin peninsula during the summer months when the trade winds blow around the bay of San Francisco.

The first Oakland meeting of the fall season was held on Tuesday evening, October 12th. It afforded an opportunity to Mr. Lee H. Newbert to present himself to our members in his new capacity as manager of the Alameda County district.

Mr. Newbert was introduced by Chairman Earl Fisher and made a graceful address. He expressed his desire to become personally acquainted with as many men and women in his district as possible. He bespoke their co-operation for the general good of the organization and asked them to regard him as their friend, as one who would always be in sympathy not only with their work but with their personal well-being, and he pledged himself to follow, as worthily as lay in his power, in the footsteps of his illustrious predecessor, Mr. Leach. Mr. Newbert received a hearty greeting from a large audience.

The entertainment program was exceedingly good. Miss Eleanor True, a pupil of Ruth St. Denis, pleased the audience with some very original dancing. Another attraction was furnished by the company's own talent in a sketch taken from the well known character of Boob McNutt. This was put on by Mr. and Mrs. F. H. Seaward of the San Francisco district, and proved most entertaining. Another enjoyable number was given by Mr. Howard Milholland, who sang and recited. His impersonations were as good as his stories. This kind of an act always goes well.

Following this program Mr. Robert Sibley, editor of the *Journal of Electricity*, delivered an address upon hydro-electric development in California and what the future has in store for the public utilities and its employees. Mr. Sibley has been heard before on this most interesting

subject. He has facts and figures at his command to show that not only has the Pacific Coast taken the lead in development so far, but that its resources in proportion to its population far surpass those of the territory east of the Sierra Nevada Mountains. Upon this occasion Mr. Sibley used lantern slides illustrating the power development going on in the

State, and gave a full description of the work in progress. His discourse was a real treat to a large number of men and women who had not before had the pleasure of listening to him.

A dance was the wind up of a very enjoyable evening. Needless to say the music was furnished by our own "Pacific Service" orchestra.

## *A Practical Lesson in Trout Fishing*

(By Our Chief Draftsman)

Five pertinent points on how to do it:

1. Locate a body of water which is the habitat of the species.
2. Provide yourself with the proper equipment.
3. Use the proper bait.
4. Locate the holes frequented by the larger fish.
5. Drop your line at the proper moment to get a strike, then land 'em if you can.

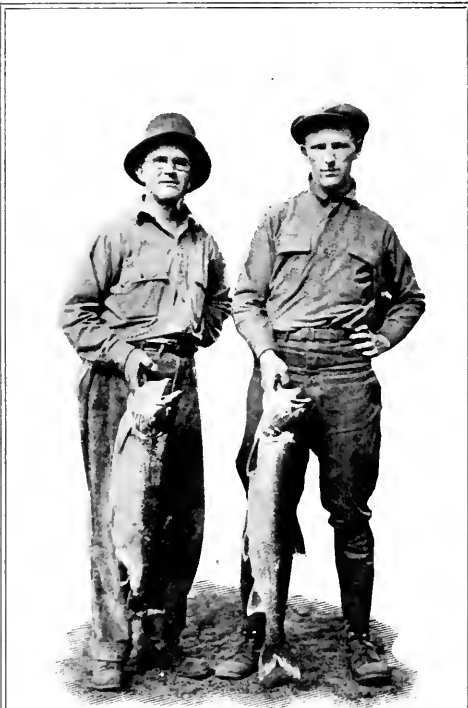
The fish shown, together with others not so displayed, were caught in Donner

Lake by Henry Bosch and C. E. Baugh of the drafting department while on vacation with their families at Donner Lake Camp, four miles east of the summit of the Sierra Nevada on the Truckee side.

The trout held by Miss Marylin Beth Bosch measures 33 inches long and weighs 12 pounds.

Those held by the fishermen measure 27 and 33 inches long and weigh 12 pounds, each measuring 18 and 16 $\frac{1}{4}$  inches in circumference, respectively.

Fact!



Henry Bosch and C. E. Baugh



Miss Marylin Beth Bosch

# *The Financial Side of "Pacific Service"*

Following is approximate condensed Income Account Statement for the nine months ended September 30, 1920, compared with the same period of the preceding year:

## NINE MONTHS ENDED SEPTEMBER 30TH

	1920	1919	INCREASE	DECREASE
Gross Earnings, including Miscellaneous Income.....	\$25,879,471.61	\$19,464,936.58	\$ 6,414,535.03	
Maintenance and Reserve for Depreciation.....	3,112,370.60	2,293,800.11	818,570.49	
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	15,072,938.34	10,433,441.25	4,639,497.09	
Total Expenses.....	\$18,185,308.94	\$12,727,241.36	\$ 5,458,067.58	
Net Income.....	7,694,162.67	6,737,695.22	956,467.45	
Bond and Other Interest.....	3,644,680.20	3,154,313.57	490,366.63	
Balance.....	\$ 4,049,482.47	\$ 3,583,381.65	\$ 466,100.82	
Bond Discount and Expense.....	216,343.60	155,942.04	60,401.56	
Balance.....	\$ 3,833,138.87	\$ 3,427,439.61	\$ 405,699.26	
Additional Depreciation Reserve.....	750,000.00	750,000.00		
Surplus.....	\$ 3,083,138.87	\$ 2,677,439.61	\$ 405,699.26	
Dividends on Preferred Stock.....	1,317,797.38	1,127,089.28	190,708.10	
Balance.....	\$ 1,765,341.49	\$ 1,550,350.33	\$ 214,991.16	
Dividends on Common Stock.....	1,275,152.18	1,275,152.18		
Balance.....	\$ 490,189.31	\$ 275,198.15	\$ 214,991.16	

In the first nine months of the current year, gross revenues showed a very substantial increase of \$6,414,535.03 over the corresponding period of 1919. The significance of this increase in the Company's earning capacity, due partly to the acquisition of new territory and partly to the more intensive cultivation of the field already covered by the Company's operations, may be appreciated from the statement that this growth in Gross Earnings in the nine months' period is (with the single exception of a utility serving the southern portion of the State) greater by upwards of \$1,000,000 than the entire Gross Earnings during 1919 of any similar utility in California; and is equivalent to upwards of 60% of the Gross Earnings of that utility last year.

The balance remaining for preferred stock dividends, after providing for operating expenses, fixed charges and every foreseeable contingency, was \$3,083,138.87. The three quarterly preferred stock dividends so far paid this year aggregated \$1,317,797.38, leaving a margin of safety over these dividends of \$1,765,341.49. In other words, the preferred stock dividends in this period were earned 2.34 times. The very seasonable rain and snow falls which have been experienced during the past few days, with the consequent withdrawal by the State Power Administrator of all restrictions upon the use of electricity, should also have a favorable influence upon net revenues.

SECURITY HOLDERS

Less than six and one-half years ago, when the Company originated the idea of disposing of its stock to as large a number as possible of its consumers and other residents of the territory served, its stockholders numbered 2,898. On October 15th, 1920, eliminating all duplications due to ownership of more than one class of stock by the same individual, there were 10,825 owners of this stock, an increase of 7,927, or 274%, as indicated by the following table:

DATE	Number OF HOLDERS
June 3, 1914.....	2,898
December 31, 1915.....	7,080
December 31, 1917.....	8,141
December 31, 1919.....	8,813
October 15, 1920.....	10,825

No less than 7,960, or 73.5%, of our stockholders are residents of California.

This steady increase in the number of California stockholders affords an excellent indication of the high regard in which the Company's First Preferred 6% Stock is held among the investors of this State, who are naturally in the best position to judge of the merits of the security.

THE COMPANY'S BUSINESS DEVELOPMENT

The addition of new customers to the Company's distribution system, in spite of the power shortage which has prevailed during the last few months, and which to some extent curtailed the ordinary development of business, continues at a rate unprecedented in our history. In the first nine months of the current year, 28,995 consumers were added to our lines, September setting the record for normal growth with a net addition of 5,075 customers.

The following tabulation shows the steady increase in the number of consumers served by the Company in the past 13 years.

STATEMENT OF CONSUMERS BY DEPARTMENTS AS OF SEPTEMBER 30TH

September 30	Gas Department	Electric Department	Water Department	Steam Sales Department	Total	Increase Each Year
1907.....	116,289	51,145	5,494	.....	172,928	.....
1908.....	127,345	59,025	5,745	.....	192,115	19,187
1909.....	135,120	67,028	6,326	.....	208,474	16,359
1910.....	147,388	79,933	6,676	.....	233,997	25,523
1911.....	161,251	95,514	7,208	34	264,007	30,010
1912.....	190,458	112,079	7,893	185	310,615	46,608
1913.....	203,588	126,554	8,361	252	338,755	28,140
1914.....	216,016	143,134	9,035	313	368,498	29,743
1915.....	226,502	161,441	9,498	362	397,803	29,305
1916.....	229,480	174,422	9,984	390	414,276	16,473
1917.....	239,290	188,950	12,456	427	441,123	26,847
1918.....	250,879	205,333	13,073	447	469,732	28,609
1919.....	264,826	222,514	13,227	425	500,992	31,260
1920.....	281,342	260,356	16,431	429	558,558	57,566
Gain in 13 Years.....	165,053	209,211	10,937	429	385,630	7385,630

Total number of consumers served at September 30, 1920.....558,558

## CALIFORNIA'S SUBSTANTIAL GROWTH

The recently published report of the United States Census Bureau reveals a growth of population which is particularly satisfactory to Californians. Only three States registered an increase of upwards of one million persons, the census figures being as follows:

	1920	1910	INCREASE	
			NUMBER	PERCENT
New York.....	10,384,144	9,113,614	1,270,530	13.94
Pennsylvania.....	8,720,159	7,665,111	1,055,048	13.76
California.....	3,426,536	2,377,549	1,048,987	44.12

Two facts stand out predominantly in the above tabulation: Firstly, in actual growth of population, California vies very closely with the two largest States of the Union; and secondly, in ratio of growth this State expanded more than three times as rapidly as either of the other two.

The figures for the first four States, in point of increase on a percentage basis, are given below:

	1920	1910	INCREASE	
			NUMBER	PERCENT
South Dakota.....	635,839	383,888	251,951	65.64
Arizona.....	333,273	204,354	128,919	63.09
Montana.....	547,593	376,053	171,540	45.61
California.....	3,426,536	2,377,549	1,048,987	44.12

It will be observed that while South Dakota, Arizona and Montana exceeded California in point of percentage growth, the actual increase in population of the latter is approximately twice that of the other three States combined.

This splendid record of growth in the past ten years augurs well for the future prosperity of the Pacific Gas and Electric Company, which serves 36 of the State's 58 counties and well over one-half of its population. The extent to which this Company has shared in the State's growth, not only from the standpoint of population, but also in industrial and agricultural development, is indicated by the fact that in the period from 1910 to 1920, the number of customers served has increased from 233,997 to 558,558, an addition of 324,561, or 138.8%, compared with an increase in the State's population in the same period of 44.1%. The remarkable increase of the Company's earning capacity during this interval is indicated by the following table:

Gross Business, 1910.....	\$14,044,596
Gross Business, 1920*.....	32,997,223
Gain in 9 years, 9 months.....	\$18,952,627
Average gain per year.....	1,943,859

\*Twelve months to September 30, 1920.

## SALES OF FIRST PREFERRED STOCK

We beg to direct the attention of our readers to the reproduction of an advertisement respecting the Company's offering of First Preferred 6% Stock which appears in this issue. The present price of \$80 per share for this stock is the lowest figure at which the stock has ever been offered by the Company, and is made possible only by the unusual market conditions which now prevail. The unsurpassed record of growth and earning capacity revealed in the preceding statements leaves no room for doubt as to the strength of the Company's position; and it is anticipated that our existing stockholders will desire to avail themselves of the opportunity to increase their holdings of this security upon the present favorable terms.



Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - BUSINESS MANAGER  
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PACIFIC GAS AND ELECTRIC COMPANY  
at 445 Sutter Street, San Francisco

*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII      OCTOBER, 1920      No. 5

EDITORIAL

The enactment of a general law by the State Legislature providing for the granting of indeterminate franchises and the adoption of amendments to municipal charters designed to accomplish the same purpose, is recommended by a committee of the California Bar Association.

The necessity of obtaining renewals of franchises from the constituted authorities in the various sections of the State has been a stumbling block in the path of the street railroad companies and concerns in greater or less degree other utilities having need of public highways for local service, and it has been thought that some uniform law should be in force to enable a utility to procure its necessary franchises under suitable conditions as to performance of the public obligations imposed upon it; such franchises to run without interruption so long as these obligations shall be faithfully performed or until such time as the properties of the utility shall be taken over by municipality or State.

To this end the California Bar Association appointed a special committee to investigate conditions and make such report as it deemed advisable for action at the next session of the State Legislature. Upon the subject of terms and conditions

essential to accomplishment of the purposes for which franchises are granted the committee is quoted as follows:

"The public properly desires efficient service at reasonable rates, not only at the beginning, but also throughout the entire life of the franchise. It follows that the public interest requires that all plants or systems to be constructed and used as a means of performing the desired service should originally be well constructed and subsequently be well maintained, efficiently operated, and extended and improved from time to time as population increases and progress is made in the arts and sciences. Moreover, it is entirely reasonable and proper, in view of the nature of a franchise and the character of the service intended to be secured by a grant thereof, that the public, when it grants a franchise should, for the purpose of obtaining the most favorable rates for the public and for the further purpose of being able eventually to take over, on the most favorable terms, the performance of the service and the property necessary therefor, if and when it shall become desirable so to do, stipulate, as one of the conditions of the grant, that no value shall be assigned or attributed to the franchise either in connection with the fixing of rates or in connection with the purchase or condemnation of the properties used in the exercise of such franchise.

"The owners of a franchise who, in consideration of the grant thereof, have undertaken to serve the public, naturally and properly desire security for the capital which they invest and some assurance that if they conduct their business prudently they will be able to obtain a fair return upon their investment and a reasonable reward for the skill and labor which they devote to the service of the public. Unless there is reasonable security for the capital invested and a fair opportunity of obtaining a reasonable profit in the service of the public under authority of a franchise, a private natural person or corporation, if well advised, will refuse to accept the grant of a franchise and to incur the obligations implied in its acceptance, or having accepted such franchise, will be unable to supply the capital required for the proper construction, maintenance, extension and improvement of the plant or system required for the performance of the service which the public desires.

"The grantee of a franchise may very well be expected to assume all of the usual and ordinary risks which are incident to or attendant upon the conduct of the enterprise in which he engages. But it is plainly reasonable and proper that the grantee of a franchise should require, as a condition of his accepting a grant thereof, that the terms upon which such franchise is offered shall afford positive assurance that neither action nor inaction on the part of the government with respect to such franchise or the plant or property used in the exercise thereof shall render insecure either his invested capital or his right to receive reasonable compensation for the use of such capital and the labor and skill which he devotes to the public service.

"When the public use to be served by the possessor of a franchise is of indefinite duration, the capital invested in the plant or system required for the exercise of such franchise and for the service of such use should be treated as having been permanently invested, that is to say, it should not be amortized out of earnings or profits derived from its use, because any amortization of capital out of earnings necessitates the charging of higher rates for service and consequently increases the burden on the public and, by adding to the difficulty and cost of developing business, diminishes the probability of such possessor's being able to earn a reasonable return upon his investment."

The committee presents the following conditions, express or implied, as those upon which every grant of franchise should be made, as a means of obtaining service for indefinite duration:

"That the grantee shall at all times render efficient service at reasonable rates and without unreasonable discrimination;

"That both the rates to be charged and the service to be rendered by the grantee of the franchise shall at all times be subject to such reasonable regulation as is permissible under the Constitution;

"That every franchise granted shall be deemed to be a contribution by the public to the grantee who engages in its service, and, consequently, that no value shall be assigned to any franchise for the purpose of rate fixing or for the purpose of purchasing or condemning property employed in its exercise;

"That the grantee of a franchise shall neither be required nor permitted to

amortize out of earnings the values of the properties which continue to be used and useful in the proper performance of the public service contemplated by the grant; and

"That the grantee's right to continue in the possession and ownership of his invested capital and his right to reasonable compensation for the use of his capital and for his labor and skill devoted to the public service shall be secured against any positive action or any failure to act on the part of the government."

The members of this special committee were: William B. Bosley, head of the law department, Pacific Gas and Electric Company, chairman; Charles S. Burnell, city attorney of Los Angeles; E. O. Edgerton, president of the California State Railroad Commission; James A. Gibson, attorney of Los Angeles; Percy V. Long, former city attorney of San Francisco, now in general practice; Roy V. Reppy, head of law department, Southern California Edison Company, Los Angeles; Robert M. Searls, attorney for the Hetch-Hetchy project, San Francisco.

In this connection we desire to call attention to an address by Mr. O. B. Willcox, vice-president of Bonbright and Company and chairman of the Committee on Public Service Securities, Investment Bankers' Association of America, delivered before a meeting of executives of the gas industry in New York May 26th last.

This was an emergency meeting, called by the American Gas Association to consider the serious conditions which menace the gas companies of the United States and threaten the continuity of an indispensable service to the public.

Mr. Wilcox dealt with "The Cost of Money and the Credit of Public Utilities," and, in directing attention to a number of factors bearing directly upon the credit of utilities said:

"The limited term franchise is always a menace; it often increases the cost of new money and sometimes makes it impossible to obtain. Theoretically, the whole utility investment should be amortized within the term of the franchise, which is inconsistent with cheap and efficient and expanding service. The mutual interests of the public and the investors, the commissioners and the operators should make common cause in making possible, by legislation where necessary, to substitute the indeterminate franchise under reasonable provisions."

## Tidings From Territorial Districts

### Alameda County District

Talk about Teddy Roosevelt and the other big game hunters! And you don't have to go to Africa, either. The Harbor View Club has some mighty hunters who would make the achievements of Teddy look like an amateur Friday night at the Columbia Theatre. So, dear fellow workers, allow me to introduce J. Kemp Madocks and Nemo Grexton.

Kemp a few Sundays ago took a trip into the wilds of San Joaquin Valley in quest of the large feathered birds which they say haunt these regions. He was justly rewarded with a very fine specimen which flew up out of a bed of wild asparagus. But the thing made at him with wings spread, bill wide open and blood in its eyes. He up with his trusty gun and the bird fell at his feet. Kemp wants to know if a Carnegie medal is due for saving his own life. He quickly placed it in his hunting coat and returned with the exciting tale, that is, a story to tell his fellow comrades. But Botchie and Hinky Dinky Heino could not grasp the great line of chatter Kemp tried to tell in few words. They came to the conclusion it was no filly-up bird but an undersized dog-chased, common, every day turkey.

Yes, Nemo is a regular hunter and mountaineer, for he made a trip up to Shasta County to see the company's new work. Incidentally he took his trusty rifle to hunt large game. He took a detour into the lava beds of Mt. Lassen, that old mountain which is always spilling over. He shot a deer, or rather, says he did. His description in flowing language is of a beast about nine feet high and eleven feet long, with a spread of horns about seven feet with nine or eleven points. Teeth on it to make a walrus blush and a tail like a bird of paradise, with stripes down its black two feet wide. Sure he did. He knows he killed it. He made the rest believe it, too, for they wore out perfectly good shoes looking for it; and their reward was—a porcupine. All Nemo says is, "Dey tink I vas a fish."

Is mental activity making young men bald? Charlie Cowell and Charlie Young got into a very animated discussion on the subject. The two Charlies are often mistaken for twins. There is a very strong resemblance in some respects. It was these respects which led to the discussion. The second Charlie said his name, Young, classed him and contended it proved that deep thinking did it. The other maintained that, generally speaking, it was the result of the late war and the resultant strain on body and brain. Fred George, the Beau Brummel of "Pacific Service," who says if the necessity ever comes he can at least travel for a hair restorative company, that from his viewpoint it is from applying too much hair tonic or from washing the head so often; it doesn't give the natural oils a chance. Both Charlies say Fred is always queering lofty thoughts.

Bob Miller and Lee Price are two simon pure Democrats. They take commendable pride in the preachments. Somebody read and so told Lee that someone up in Chico, a poet, probably, had offered a reward for a word to rhyme with "Cox." Lee thought it easy, but after some study he evidently was as bad off as the poet. Then the messenger boy happened along with "fox, box, rocks, knocks, smallpox."

Two No. 7 and No. 8 Stirling boilers have been put into commission at gas station "B," giving an over-abundance of steam.

Excavation work for foundation of a No. 8 Jones gas generator, 5,000,000 cubic feet capacity, is well under way. Last winter our generating capacity was taxed so that this addition is timely.

The erection of a new 20,000 gallon water tank at gas station "B" is under way and will be completed shortly.

Mr. Van E. Britton and our chemist, L. A. Fulton, returned after a most enjoyable trip to Portland in Fulton's new Marmon, and both were much refreshed from the journey. They attended the

Portland Gas Convention and made a study of the Portland plant. Portland has one of the best equipped plants in the West.

The "Gas House Terriers' Club" is flourishing and prosperous. Meetings will be held once a month throughout the winter, the next one being October 28th. Every employee of "Pacific Service" is cordially invited on this occasion. The club has several pretty fair boxers at 135 to 155 pounds who are looking for competition, and anyone who would like to help out in the entertainment by participating in a contest will be more than welcome. Wrestlers are looking for outside matches at about the same weights. A ladies' night is promised. The girls in the various departments are awaiting an appointed date and say they will be there.

At the last meeting R. Earl Fisher of the Commercial Department dropped in and gave an inspiring address. He is a member of the Speakers' Club.

A bunch of the boys were eating at a downtown restaurant. In a discussion the question arose whether it is possible to eat, talk and think at the same time. A. U. Brandt said he is sure that Bill Shuhaw could do the first two successfully.

Reports received at the University Farm during the past week show that Mariout barley has outyielded common barley in every part of the State. B. S. Phillips of Chico harvested 34 sacks per acre of 114 pounds each from 302 acres of Mariout, while common barley under similar conditions did not exceed five sacks per acre.

The fire department boys at Livermore have a new engine, so that D'Ombraïn says our water supply is now safe because there ain't going to be no fires.

Anyway, Livermore will now enjoy a feeling of safety.

Local botanical records for the season show that San Leandro leads in the sunflower class. One of the local natives grew a sunflower which measures twenty inches in diameter. Alameda comes second with a seventeen and one-half inch flower and Oakland comes third with one sixteen inches.

Roy Cowles has good standing in all hygiene and health discussions because he falls back upon the fact that there is a doctor in his family. Roy says that onions may build you up physically, but that they will pull you down socially.

Miss Ethel Olsen, the comptometer operator, is not saying much, but she is as busy as a bee with the needle getting ready for what is going to happen about the first of the year. At the rate Cupid is darting among the girls in the accounting office there will be very few of them left by the time the flowers bloom in the spring. Ethel will have some hope chest at the rate she is turning out the fancy work with her needle. We all wish her unbounded joy, as she goes bounding along on the choppy sea of matrimony. The sea may be choppy, but good sailors can pick out the smooth course. Lucky is the man who captures Ethel, as she will be faithful to the last ditch judging from her long and faithful service with the company.

Miss Luly Wood, who has gone to New York for one year's leave of absence, has kept her co-workers posted on her every little movement by the postal route. New York is some city, but we hope that "somewhere a voice is calling" her back to the Golden West.

The Portland Gas Convention was well attended. District Manager Lee Newbert, Al Parratt and Johnnie Clement represented this district.

There were many important papers. The one on reducing the heat units in gas made much headway. All were very enthusiastic over the country. There was some rain, but this was not in any sense a detriment, but rather added to the freshness of the grass and the many beautiful roses, as well as to stateliness of the abundant forests of the arrow-like fir trees.

Then there was the broad expanse of water, across which lies Vancouver, Wash., with its miles upon miles of railway tracks, its many saw mills and great lumber yards, and, again, the immense shipbuilding plants, as well as many large and varied manufacturing plants, all of which one regards with surprise and remembers with lasting pleasure.

"Uncle Johnny" concluded:

"I will say this, however, if you love

nature, if you love majestic forests, if you love to see the handiwork of man, especially the work of the pioneer in his building up of active, busy cities, of his placing on the bosom of great waters floating palaces for the comfort of others and for the great commerce of the world, visit this Great Northwest."

KALOS, Alameda.

### IN MEMORIAM

JAMES O. FARNSWORTH.

James O. Farnsworth, construction foreman at Newark substation, while instructing one of his men preparatory to clearing from the line a defective transformer, made accidental contact with the 11,000-volt primary to this transformer bank and was instantly killed.

Mr. Farnsworth was a man of wide experience, having had charge of important construction work up and down the coast with the Hunt-Mirk Company, later serving as assistant superintendent of substations for "Pacific Service" in San Francisco, then as superintendent in Oakland for the Central Oakland Light and Power Company. He remained with the latter until that company was dissolved, when he returned to "Pacific Service" as construction foreman at the Piedmont substation. About two years ago, having been in the O. & M. department of the Alameda County district since January 2, 1914, he was selected to take charge of the construction work at Knights Landing and Newark.

His untimely death comes as a severe blow to his former associates and the countless number of friends which he made while employed in this district. We extend our deepest sympathy to Mrs. Farnsworth and daughter in their bereavement.

### Sacramento District

It is really interesting to see the number of men who are going from this city to the great works on the Pit River. Automobile stage loads on top of automobile stage loads are leaving here every

day. All bent on a mission that means so much to us and to every person in this State. A battle against the refractory elements of nature that guard so jealously that wonderful, God-given, mysterious power—electricity. Up to the present it has been almost unobtainable on account of the enormous expense necessary to tear it from its resting place and put it on the wires of our transmission systems, so that it can be conveyed to the various places where it can be converted into food, light and manufacturing appliances for the use of all.

The spirit of co-operation shown by our merchants in cutting out all unnecessary consumption of power is very encouraging.

Our request to them to cut out signs, show windows and decorative lights was met with a spirit of good fellowship that was certainly a proof that the spirit of fairness is strong in the land.

The writer was asked to write a short article on the State Fair recently held in Sacramento. We thought we could, in fact, we took notes to that effect, and then we looked around and found it could not be done! Why? Because the fair was too big a subject to be handled in a short article. An event to describe which would take volumes that would contain so many diversified subjects that it would require expert testimony. Let's see—fruit, fish, sunshine, flowers, chickens, pigs, hogs, cows, calves, bulls, bullocks, horses, sheep, pigeons, automobile tractors, vegetables, flying machines, washing machines, parachute jumps, running races, cafeterias, threshing machines, ice cream, Limberger cheese, lubricating oil, prize dolls, bulldogs—but, say, why go further? Just a perusal of the preceding list will show you how notes get twisted, and, believe me, it would take an expert to get them untwisted.

I will say that from a standpoint of wonderful stock, poultry, fruits, flowers, machinery, brave men and beautiful women, this State Fair surpasses any previous one held in California. Nearly 250,000 people visited the various buildings and exhibits. More country displays were in evidence than before and of such splendid classes of exhibitors, artistic and comprehensive.

The weather was beautiful and the classes of entertainment were good. The counties that did not have displays certainly lost a wonderful opportunity to place themselves on parade before a very critical audience. We hope that next year will see every county in this great demonstration of our resources. This will insure what we all so heartily desire, and that is "success."

A very apt definition of success will not be amiss here. It is called the

#### SUCCESS FAMILY.

The father of Success is Work;

The mother of Success is Ambition;

The oldest son is Common Sense;

Some of the other boys are Perseverance, Honesty, Thoroughness, Foresight, Enthusiasm and Co-operation;

The oldest daughter is Character;

Some of her sisters are Cheerfulness, Loyalty, Courtesy, Care, Economy, Sincerity and Harmony;

The baby is Opportunity.

Get acquainted with the "old man" and you will be able to get on pretty well with the rest of the family.

G. B. B.

#### Solano District

Both employees and consumers in Solano district have displayed quite an interest in the company's first preferred stock, and a number of subscriptions have been received from both sources.

Our local agents, C. E. Wyatt at Winters and F. A. Starmer at Suisun, have been particularly active in disposing of stock to local people. Mr. Wyatt, however, has gone a step farther, or rather a good many miles, and has sold this security to parties in Michigan. This is only another proof that the fame of "Pacific Service" is far reaching. To paraphrase a bit, here is a case where a profit is with honor outside our own country.

C. E. SEDGWICK.

#### Santa Rosa District

The new dehydrator plant of the Setchel-de Journal Company in Wright Street at the Southern Pacific "Y," expects to handle a large quantity of grapes

during the run, as well as quantities of fresh vegetables.

The plant is the second of the three new dehydrators to be erected in Santa Rosa this season. The other is the International Brokerage Company at Ninth Street and the Northwestern Pacific, and another not yet in operation is that being erected by the National Ice Company at Sebastopol Avenue and the railroad.

T. Tod Cowles is in charge of the Setchel-de Journal Company's plant, assisted by Gordon P. Glassco, an electrical engineer graduate of McGill University, Toronto, who served in the world war with the famous Princess Pat regiment. The plant is one of the most compact and convenient to be found. The heat for the drying process is gas from the Pacific Gas and Electric Company's plant and oil, both being used so as to prevent any possible chance of a breakdown or stoppage.

The plant consists of the usual dipper and a three-unit international dehydrator. Each unit is entirely separate from the others. Gas is used for the dipper and one unit of the dryer, while oil will be the fuel for the other drying units.

Each unit has a capacity of drying ten tons of green fruit each twenty-four hours, a total of thirty tons for the plant. Grapes will dry in from twelve to fifteen hours under the process. Each unit has seven dollies, carrying fourteen trays each of green fruit, which are placed in the dryer next the dipper, and after passing through come out at the other end ready for boxing to be shipped. The only handling is the loading into boxes in the cars on the siding and dumping into the dipper when carried there on carriers. The fruit is then dumped on trays on dollies, which are carried on trucks to the dryer, where they are slid into the dryer to again be slid out at the other end and taken to the shipping platform by trucks.

The company is prepared to handle tomatoes, cabbages, peaches, berries and any kind of fruit or vegetable for which a market can be secured, and it is expected that the plant can be operated the year round after producers become acquainted with its possibilities.

Fruit and vegetable growers and all others interested are cordially invited to visit the plant and witness its operation.

M. G. HALL.

### San Francisco District

Recently a consumer of the Pacific Gas and Electric Company was obliged to seek the services of a dentist for one of his children who became quite ill about midnight. As an operation was necessary the child was rushed to the doctor's office in a downtown building.

Before leaving, the consumer, who had been told to bring a flashlight, as the building halls were unlighted, found his flashlight out of order. The availability of service rendered by the Pacific Gas and Electric Company in cases of emergency occurred to him and he telephoned the company asking for assistance, which, needless to say, was rendered 100 per cent.

F. TALCOTT.

Here is another testimonial to the service that is "Pacific Service":

"Gentlemen—Your letter of September 29th regarding your investigation of the poor gas pressure and chronic trouble with gas served to lower flat at 660 Elizabeth Street.

"I wish to advise you that your representatives called last Saturday and thoroughly adjusted the gas range, reporting that everything else was in good working order. The house line had been badly choked, and this being a condition you are not responsible for we engaged the services of a plumber who cleaned it out. However, I noticed that your men were fully equipped to do this for us.

"Pressure now is very good. I want to thank you for your prompt attention to this trouble, and for the courtesy of your two representatives whose names I do not know.

"Yours very truly,  
"S. L. ROSSI."

That it pays to advertise is clearly illustrated by the following communication addressed to our house heating department from far-away Pennsylvania:

Easton, Pa., Sept. 13, 1920.

Mr. H. M. Crawford,  
Room 503, 445 Sutter Street,  
San Francisco, Cal.

Dear Sir—As a stockholder of the Pacific Gas and Electric Company I receive the PACIFIC SERVICE MAGAZINE, and notice in the August issue that a complete exhibit of the modern house-heating equipment has been established at the above address.

The Easton Automobile Company are about to build a new show room 65 by 57 feet high, which we would like to heat by gas from our local gas works.

If you will give us any information and the address of any concern nearest to us who can supply the best equipment for this proposition we will greatly appreciate the courtesy. I am enclosing addressed envelope for reply.

Yours very truly,

THOMAS FASSITT.

P. S.—Kindly inform us how much your company charges per 1000 for gas for heating on such a proposition.

### NOTES FROM THE BOOKKEEPING DEPARTMENT.

As a first aid to Cupid, Charley Floyd and the Records Department are doing quite well, thank you. The engagement of Annette Joue and George Browning came as a pleasant surprise to their many friends.

It is quite apparent, also, that Harry Lemos is not the same man since the departure for Honolulu of one of his co-workers.

C. C. Chapman, for many years a popular member of the bookkeeping family, resigned his position on October 1st to take a place in the production department of the Standard Oil Company.

Sydney Knoph has been transferred from the bookkeeping department to the general auditing department.

Our impressionistic song bird, Cedric Kasten, was a regular attendant at the recent operas. While somewhat divided, majority of opinion leans toward Kasten's execution rather than Scotti's.

Sam Nicholls was painfully injured by a careless automobilist on October 1st. Mr. Nicholls was alighting from a Sutter Street car at Pierce Street when struck by the machine.

Popular fancy is fickle. Harold Lloyd dethrones Charlie Chaplin as king of film funmakers. And Mr. Harold must look to his laurels when "In and Out and In Again," the celluloid comedy featuring our handsome hero, Mr. John Hightower, is released.

"Pacific Service" rises to every occasion, meets every demand, but now and

then consumers spring new ones. The latest is service via wireless. G. H. Jordan, 38 Bernard Street, was midway in the Pacific on his way to the Orient when he remembered the gas was left burning at home. A wireless message solved the problem and a man was sent from the shop to turn out the jet.

Archie Boggs spent a two-weeks' vacation at Lagunitas. Archie says it is pleasant and restful there and one doesn't run the dangers of sleeping sickness encountered in Oakland.

The ranks of the ducks and geese around Marysville and Gridley were sadly shattered on October 15th when F. E. Oldis and party opened a week's hunting campaign.

Mrs. Sadie K. Garvey, formerly with the Oakland district, has been transferred to the bookkeeping department, San Francisco district.

Charlie Mansfield journeyed to Los Angeles for a two-weeks' stay with Reg Wilson. The news of recent southern earthquakes has probably been suppressed.

The following letter has been sent out by Mr. F. Talcott, superintendent of the gas sales bureau, San Francisco district, in connection with the Employees' Association:

ARE YOU A MEMBER? IF NOT, WHY NOT?

In connection with the Employees' Association I desire to call to the attention of the employees who are not members the fact that by signing membership cards, effective November 1, 1920, the payment of \$3 will cover the entire 1921 dues, besides giving them the benefits of socials and entertainments held by the Association for the balance of the year.

The only benefit withheld is the \$300 death benefit, which does not become effective until the first of January, 1921. I am desirous of making this department 100 per cent in the Association, and if

the employees who are not members will investigate the social and the benefit to be derived from joining such an association, as well as to know that the money paid by them may help some family of an employee in case of distress that death brings to us all, I am sure that there will be no hesitancy in signing your application cards at once.

Very truly yours,

F. TALCOTT,

Superintendent Gas Sales Bureau.

"Our gas sales bureau, which includes our front counter, lamp department and the service and complaint department, is represented in our Employees' Association 100 per cent," states District Manager Bostwick. "I feel this is an example worthy of imitation by all departments in the San Francisco district."

The following is from the pen of an employee of our industrial gas and house-heating department. It appeared in a recent number of *Life*. It is no small feather in Mr. Bolton's cap to have attracted the favorable attention of so discriminating a publication:

#### RHYTHM.

Rhythm is *Life's* undertone;  
Through it we live, and it alone.  
The vibrant rhythm of the breeze  
Makes the music in the trees,  
And in the rushing cataract  
Keeps the wave-crests curling back.  
We find the rhythm of the night  
In the Aurora's pulsing light  
And in the surging of the sea  
Is rhythm present constantly.  
For those who heed there is no lack;  
The speeding train upon the track,  
The purring engines on the deep  
An ever throbbing rhythm keep.  
In song and laughter, it is there,  
In sleep and in the fervent prayer,  
And in the legion's thundrous tread  
It takes the foe and stirs the dead.  
It is the pulsing of the heart  
That ecstasies of love impart;  
The ceaseless swinging of the tides,  
By which our very life abides.  
When rhythm dies, then we are dead,  
As Luna who no light can shed.  
Pray tell me, then, what can be worse  
Than pulseless stuff they call free verse?

ARTHUR LAWRENCE BOLTON.





## The Recent Shortage of Gasoline

in California has made business men pause in their daily routine to consider how greatly dependent is the industrial prosperity of California upon fuel and power. An intimate study of the situation takes us back to that tremendous period in our development ushered in by the discovery and general use of oil for fuel.

With amazing rapidity modern transportation facilities were perfected. Deserts were reclaimed. Towns grew into cities. "Dry farming" gave way to irrigation and with long growing seasons and fertile soil, enormous crops were raised. Such growth cannot continue. Although but 20% of our agricultural possibilities have been reached, we are nearly approaching the limits of our agricultural development. California must have power.

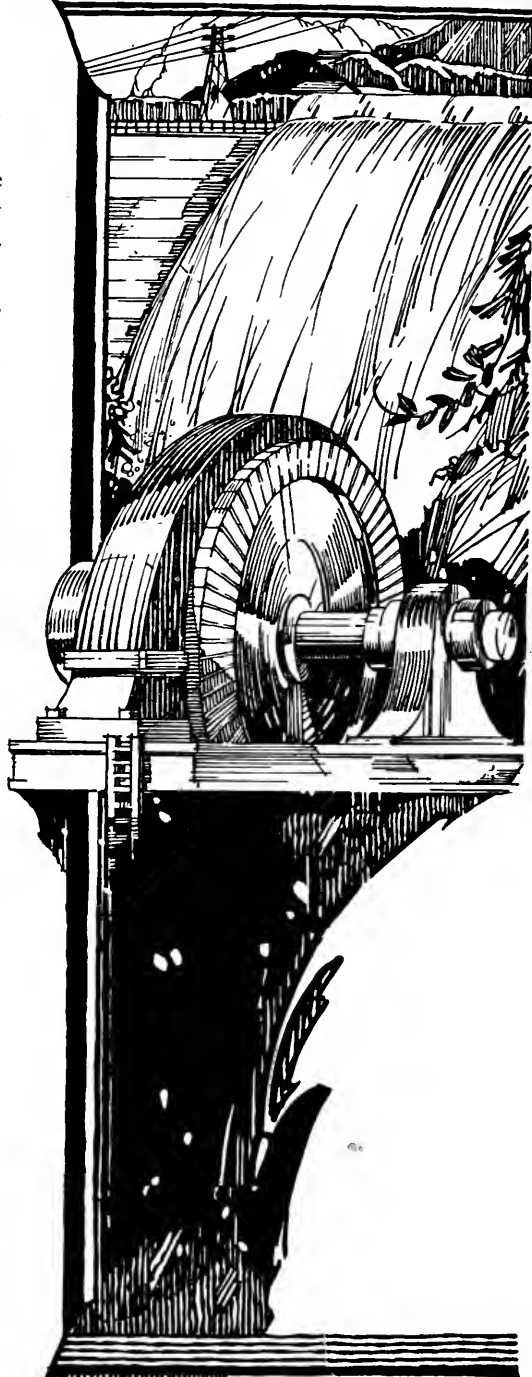
Our hope lies in the development of hydro-electric resources which today is but 10.8% realized. Other than this we have no source of power except a rapidly diminishing and increasingly expensive supply of oil. California can use all the power companies can develop in the next ten years.

### BLYTH, WITTER & Co.

MERCHANTS EXCHANGE  
SAN FRANCISCO

NEW YORK LOS ANGELES SEATTLE PORTLAND

61 Trust and 812 Yeon  
Broadway Savings Bldg. Second Av. Building



# GENERAL GAS LIGHT COMPANY

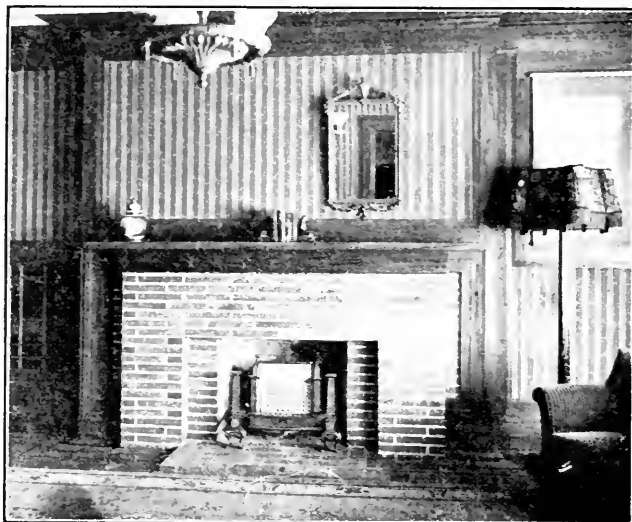
C. B. BABCOCK, *Manager*

*N* Sutter 4474

768 MISSION STREET

SAN FRANCISCO

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## American National Bank

*of San Francisco*

*Invites you to use its fully  
equipped banking service*

**Time Deposit Department** — Paying 4% compound interest on your savings.

**Foreign Exchange Department** — Drafts bought and remittances made to all parts of the world.

**Safe Deposit Department** — A place to protect your valuable papers and securities.

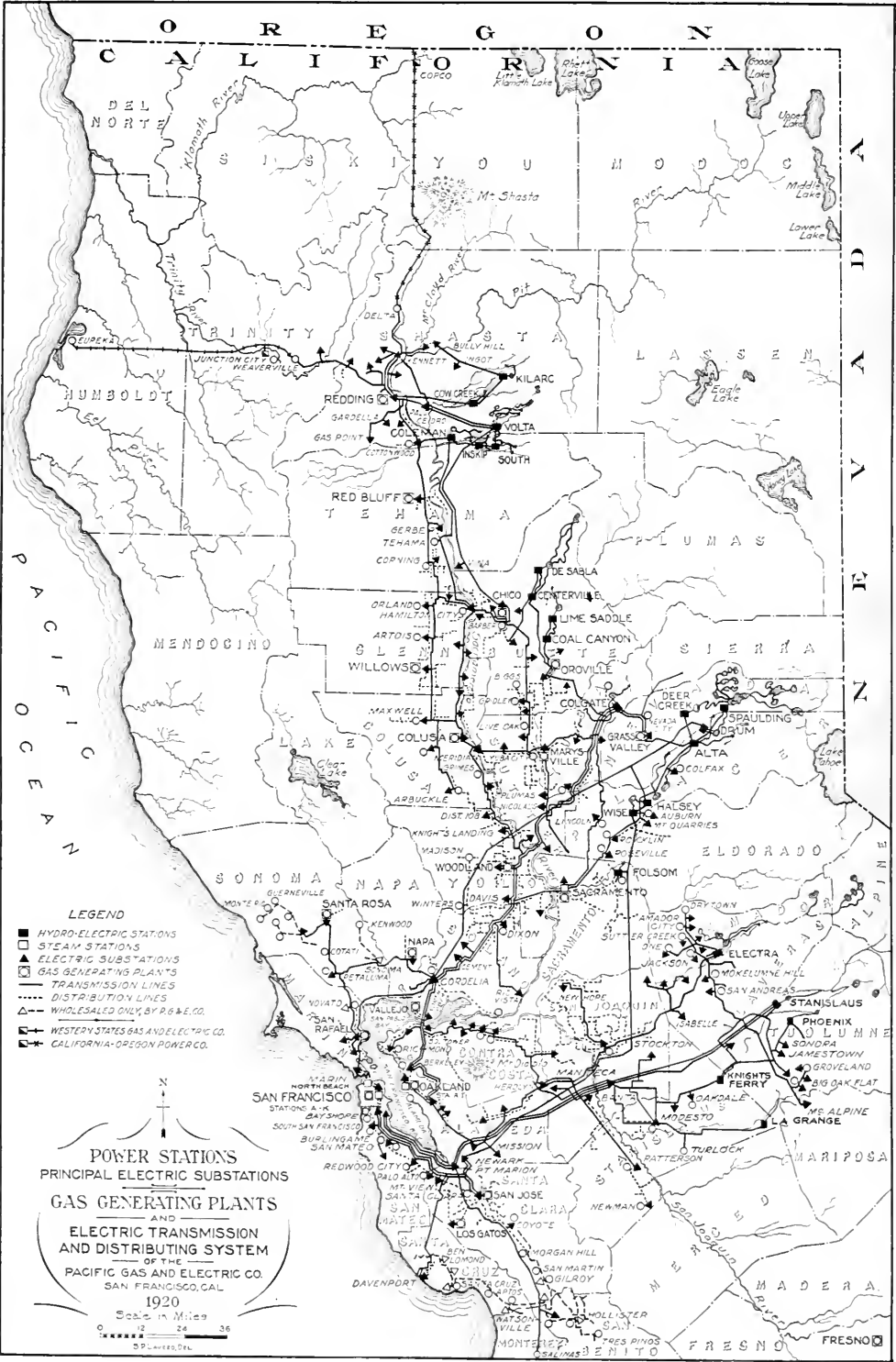
*Open on business days from 8 a. m. to 6 p. m.*

Corner

California and Montgomery Sts.



*When writing, please mention PACIFIC SERVICE MAGAZINE*



## Pacific Gas and Electric Company Furnishes

**"PACIFIC SERVICE"**

TO OVER 553,000 CONSUMERS OF

**GAS • ELECTRICITY • WATER • STREET RAILWAY**

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

			DIRECTLY		INDIRECTLY		TOTAL	
			No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....			166	1,259,006	60	156,225	226	1,415,231
Gas .....			54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....			17	66,873	8	19,300	25	86,173
Railway .....			1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>1</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	3,000	<sup>1</sup> San Pablo.....	500
<sup>1</sup> Albany.....	2,300	<sup>1</sup> Emeryville.....	400	<sup>1</sup> Mission San Jose.....	350	<sup>1</sup> San Quentin.....	2,500
<sup>1</sup> Alvarado.....	700	<sup>1</sup> Escalon.....	500	<sup>1</sup> Modesto.....	14,000	<sup>1</sup> San Rafael.....	6,000
<sup>1</sup> Alviso.....	550	<sup>1</sup> Esparto.....	250	<sup>1</sup> Mokelumne Hill.....	300	<sup>1</sup> Santa Clara.....	6,000
<sup>1</sup> Amador City.....	1,100	<sup>1</sup> Fairfax.....	250	<sup>1</sup> Monterey.....	6,500	<sup>1</sup> Santa Cruz.....	13,600
<sup>1</sup> Anderson.....	800	<sup>1</sup> Fairfield.....	1,000	<sup>1</sup> Morgan Hill.....	750	<sup>1</sup> Santa Rosa.....	11,000
<sup>1</sup> Angel Island.....	280	<sup>1</sup> Fair Oaks.....	300	<sup>1</sup> Mountain View.....	2,500	<sup>1</sup> Saratoga.....	300
<sup>1</sup> Antioch.....	2,000	<sup>1</sup> Fall River Mills.....	500	<sup>1</sup> Mt. Eden.....	210	<sup>1</sup> Sausalito.....	3,000
<sup>1</sup> Aptos.....	300	<sup>1</sup> Farmington.....	400	<sup>1</sup> Napa.....	6,500	<sup>1</sup> Sebastopol.....	1,950
<sup>1</sup> Arbuckle.....	700	<sup>1</sup> Felton.....	300	<sup>1</sup> Nevada City.....	2,900	<sup>1</sup> Shasta.....	500
<sup>1</sup> Atherton.....	250	<sup>1</sup> Folsom.....	2,000	<sup>1</sup> Newark.....	505	<sup>1</sup> Shellyville.....	200
<sup>1</sup> Auburn.....	2,800	<sup>1</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950	<sup>1</sup> Sheridan.....	250
<sup>1</sup> Barber.....	500	<sup>1</sup> Fresno.....	48,867	<sup>1</sup> Newman.....	1,200	<sup>1</sup> Smartsville.....	600
<sup>1</sup> Belmont.....	375	<sup>1</sup> Gilroy.....	2,900	<sup>1</sup> Nile.....	1,000	<sup>1</sup> Soledad.....	300
<sup>1</sup> Belvedere.....	550	<sup>1</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400	<sup>1</sup> Soquel.....	400
<sup>1</sup> Benicia.....	2,400	<sup>1</sup> Gonzales.....	650	<sup>1</sup> Oakdale.....	2,100	<sup>1</sup> Sonoma.....	1,790
<sup>1</sup> Ben Lomond.....	800	<sup>1</sup> Grass Valley.....	5,200	<sup>1</sup> Oakland.....	225,000	<sup>1</sup> Sonoma.....	3,000
<sup>1</sup> Berkeley.....	65,000	<sup>1</sup> Gridley.....	1,800	<sup>1</sup> Oakley.....	200	<sup>1</sup> South San Francisco.....	3,750
<sup>1</sup> Biggs.....	500	<sup>1</sup> Grimes.....	350	<sup>1</sup> Occidental.....	600	<sup>1</sup> Standard.....	300
<sup>1</sup> Bolinas.....	200	<sup>1</sup> Groveland.....	250	<sup>1</sup> Orland.....	836	<sup>1</sup> Stanford University.....	2,600
<sup>1</sup> Brentwood.....	500	<sup>1</sup> Guerneville.....	780	<sup>1</sup> Oroville.....	5,000	<sup>1</sup> Stockton.....	42,000
<sup>1</sup> Broderick.....	600	<sup>1</sup> Hamilton City.....	200	<sup>1</sup> Pacheco.....	250	<sup>1</sup> Suisun.....	800
<sup>1</sup> Burlingame.....	4,000	<sup>1</sup> Hammononton.....	500	<sup>1</sup> Pacific Grove.....	2,900	<sup>1</sup> Sunol.....	340
<sup>1</sup> Byron.....	450	<sup>1</sup> Hayward.....	4,000	<sup>1</sup> Palo Alto.....	6,000	<sup>1</sup> Sunnyvale.....	1,650
<sup>1</sup> Campbell.....	700	<sup>1</sup> Hillsborough.....	9,950	<sup>1</sup> Paradise.....	500	<sup>1</sup> Sutter City.....	250
<sup>1</sup> Capitola.....	275	<sup>1</sup> Hollister.....	2,500	<sup>1</sup> Patterson.....	500	<sup>1</sup> Sutter Creek.....	1,300
<sup>1</sup> Carmel.....	600	<sup>1</sup> Imperial.....	1,000	<sup>1</sup> Penn Grove.....	300	<sup>1</sup> Tehama City.....	221
<sup>1</sup> Cement.....	1,000	<sup>1</sup> Irvington.....	800	<sup>1</sup> Penryn.....	250	<sup>1</sup> Tiburon.....	350
<sup>1</sup> Centerville.....	850	<sup>1</sup> Jackson.....	2,100	<sup>1</sup> Perkins.....	250	<sup>1</sup> Tracy.....	2,000
<sup>1</sup> Ceres.....	250	<sup>1</sup> Jamestown.....	600	<sup>1</sup> Petaluma.....	7,500	<sup>1</sup> Tres Pinos.....	300
<sup>1</sup> Chico.....	15,000	<sup>1</sup> Kennett.....	1,200	<sup>1</sup> Piedmont.....	3,500	<sup>1</sup> Tuolumne.....	1,000
<sup>1</sup> Colfax.....	500	<sup>1</sup> Kentfield.....	500	<sup>1</sup> Pike City.....	200	<sup>1</sup> Turlock.....	4,500
<sup>1</sup> College City.....	325	<sup>1</sup> Kenwood.....	200	<sup>1</sup> Pinole.....	1,800	<sup>1</sup> Vacaville.....	1,250
<sup>1</sup> Colma.....	1,800	<sup>1</sup> Keswick.....	1,800	<sup>1</sup> Pittsburg.....	6,000	<sup>1</sup> Vallejo.....	15,500
<sup>1</sup> Columbia.....	250	<sup>1</sup> King City.....	1,500	<sup>1</sup> Pleasanton.....	1,500	<sup>1</sup> Vina.....	300
<sup>1</sup> Colusa.....	2,000	<sup>1</sup> Knights Ferry.....	250	<sup>1</sup> Port Costa.....	1,000	<sup>1</sup> Walnut Creek.....	500
<sup>1</sup> Concord.....	850	<sup>1</sup> Knights Land.....	400	<sup>1</sup> Princeton.....	300	<sup>1</sup> Warm Springs.....	200
<sup>1</sup> Coram.....	666	<sup>1</sup> King.....	260	<sup>1</sup> Red Bluff.....	3,530	<sup>1</sup> Waterford.....	300
<sup>1</sup> Cordelia.....	300	<sup>1</sup> La Grange.....	260	<sup>1</sup> Redding.....	3,572	<sup>1</sup> Watsonville.....	6,000
<sup>1</sup> Corning.....	972	<sup>1</sup> Larkspur.....	2,000	<sup>1</sup> Redwood City.....	4,200	<sup>1</sup> Wheatland.....	500
<sup>1</sup> Corte Madera.....	350	<sup>1</sup> Lewiston.....	200	<sup>1</sup> Richmond.....	16,500	<sup>1</sup> Williams.....	625
<sup>1</sup> Cotati.....	200	<sup>1</sup> Lincoln.....	1,500	<sup>1</sup> Rio Vista.....	1,000	<sup>1</sup> Willows.....	1,139
<sup>1</sup> Cottonwood.....	400	<sup>1</sup> Live Oak.....	300	<sup>1</sup> Ripon.....	300	<sup>1</sup> Winters.....	1,200
<sup>1</sup> Coyote.....	200	<sup>1</sup> Livermore.....	2,500	<sup>1</sup> Riverbank.....	400	<sup>1</sup> Woodland.....	5,000
<sup>1</sup> Crockett.....	3,000	<sup>1</sup> Lomita Park.....	450	<sup>1</sup> Rocklin.....	900	<sup>1</sup> Woodside.....	225
<sup>1</sup> Crow's Landing.....	300	<sup>1</sup> Loomis.....	450	<sup>1</sup> Rodeo.....	300	<sup>1</sup> Yolo.....	350
<sup>1</sup> Daly City.....	5,500	<sup>1</sup> Los Altos.....	500	<sup>1</sup> Roseville.....	4,200	<sup>1</sup> Yuba City.....	1,750
<sup>1</sup> Danville.....	400	<sup>1</sup> Los Gatos.....	3,000	<sup>1</sup> Ross.....	900		
<sup>1</sup> Davenport.....	300	<sup>1</sup> Los Molinos.....	200	<sup>1</sup> Sacramento.....	76,000		
<sup>1</sup> Davis.....	1,700	<sup>1</sup> Madison.....	350	<sup>1</sup> Salinas.....	5,500		
<sup>1</sup> Decoto.....	300	<sup>1</sup> Manteca.....	2,500	<sup>1</sup> San Andreas.....	750		
<sup>1</sup> Del Monte.....	300	<sup>1</sup> Mare Island.....	500	<sup>1</sup> San Anselmo.....	3,000		
<sup>1</sup> Denair.....	200	<sup>1</sup> Martinez.....	3,500	<sup>1</sup> San Bruno.....	1,500		
<sup>1</sup> Dixon.....	1,200	<sup>1</sup> Marysville.....	6,000	<sup>1</sup> San Francisco.....	580,000		
<sup>1</sup> Drytown.....	225	<sup>1</sup> Maxwell.....	480	<sup>1</sup> San Jose.....	45,000		
<sup>1</sup> Duncan's Mills.....	300	<sup>1</sup> Mayfield.....	1,100	<sup>1</sup> San Juan.....	550		
<sup>1</sup> Durham.....	300	<sup>1</sup> Menlo Park.....	225	<sup>1</sup> San Leandro.....	5,000		
<sup>1</sup> Dutch Flat.....	750	<sup>1</sup> Meridian.....	300	<sup>1</sup> San Lorenzo.....	400		
<sup>1</sup> Eldridge.....	500	<sup>1</sup> Mills.....	350	<sup>1</sup> San Martin.....	200		
<sup>1</sup> El Cerrito.....	1,200	<sup>1</sup> Mill Valley.....	3,200	<sup>1</sup> San Mateo.....	6,000		
<sup>1</sup> Elmira.....	350						

Unmarked—Electricity only.

<sup>1</sup>—Gas only.<sup>2</sup>—Gas and Electricity.<sup>3</sup>—Gas, Electricity and Water.<sup>4</sup>—Gas, Elect. and St. Railways.<sup>5</sup>—Electricity and Water.<sup>6</sup>—Electricity supplied through other companies<sup>7</sup>—Gas supplied through other companies.<sup>8</sup>—Water supplied through other companies.**"PACIFIC SERVICE" FACTS:**

Number of Electric Consumers.....	257,074
Number of Gas Consumers .....	279,110
Number of Water Consumers .....	16,277
Number of Steam Consumers .....	422

Total number of consumers..... 553,483

Operates 19 Hydro-Electric Power Plants.

Operates 3 Steam-Electric Power Plants.

Operates 20 Gas Plants.



## One Man cannot move a Mountain

**N**O longer does one man finance a great enterprise—thousands of investors *pull together* with their money and confidence.

It is the business of the National City Company, through its more than fifty offices in leading cities, its trained representatives, and by correspondence, to bring the investor and investment opportunities together quickly and conveniently.

A large number of attractive offerings appear on our current purchase sheet. Send for PG 136.

## The National City Company

National City Bank Building, New York



## Facts for

## CAREFUL INVESTORS

**O**UR book "Men and Bonds," giving information on the following subjects will be sent gladly on request.

Why we handle only carefully investigated investment securities.

The wisdom of purchasing securities from a Company large enough to maintain far-reaching investigation service.

The importance of buying investment securities from a house with over 50 offices and international connections and service.

Why the careful investor selects securities from a broad range of offerings.

How 10,000 miles of National City Company's private wires keep our offices in leading investment centers of the country in constant touch with our New York headquarters.

Your advantage in dealing with a Company whose representatives talk with an average of 3,000 banks a day.

Why these sales representatives are especially qualified to helpfully discuss your individual investment needs.

For a copy of this book, address our New York office, asking for PG 139.

BONDS  
PREFERRED STOCKS  
ACCEPTANCES

When writing, please mention PACIFIC SERVICE MAGAZINE



# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



PITT RIVER CANYON ABOVE THE FALLS

Vol.  
12

NOVEMBER 1920

No.  
6

# PACIFIC GAS AND ELECTRIC COMPANY

## DIRECTORS

F. B. ANDERSON  
HENRY E. BOTHIN  
JOHN A. BRITTON  
W. E. CREED  
W. H. CROCKER

F. G. DRUM  
JOHN S. DRUM  
F. T. ELSEY  
D. H. FOOTE  
W. G. HENSHAW

A. F. HOCKENBEAMER  
NORMAN B. LIVERMORE  
JOHN D. MCKEE  
JOHN A. MCCANDLESS  
C. O. G. MILLER

## OFFICERS

W. E. CREED . . . . .	President
JOHN A. BRITTON . . . . .	First Vice-President and General Manager
A. F. HOCKENBEAMER . . . . .	Second Vice-President and Treasurer
D. H. FOOTE . . . . .	Secretary and Assistant Treasurer
P. M. DOWNING . . . . .	Vice-President in Charge of Electrical Construction and Operation
F. A. LEACH, JR. . . . .	Vice-President in Charge of Public Relations and Service
JOS. C. LOVE . . . . .	Assistant Treasurer
CHAS. L. BARRETT . . . . .	Assistant Secretary

## HEADS OF DEPARTMENTS

F. G. BAUM . . . . .	Consulting Engineer
W. B. BOSLEY . . . . .	Attorney
R. J. CANTRELL . . . . .	Property Agent
J. P. COGHLAN . . . . .	Manager Claims Department
C. P. CUTTEN . . . . .	Attorney, Rate Department
R. E. FISHER . . . . .	Manager Commercial Department
E. B. HENLEY . . . . .	Manager Land Department
JOHN H. HUNT . . . . .	Purchasing Agent
J. P. JOLLYMAN . . . . .	Engineer Electric Construction
A. H. MARKWART . . . . .	Director of Engineering
F. S. MYRTLE . . . . .	Manager Publicity Department
GEO. H. RAND . . . . .	Manager of Collections
R. R. REIDFORD . . . . .	General Auditor
GEO. C. ROBB . . . . .	Superintendent of Supplies
W. G. VINCENT, JR. . . . .	Executive Engineer
W. S. YARD . . . . .	Engineer of Gas Department

## DISTRICT MANAGERS

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# Pacific Service Magazine

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Views on the Pit River, Shasta County, California, in the territory covered by "Pacific Service" hydro-electric operations now in progress. The two upper views are of the Pit on either side of Peck's Bridge. The view in the center is of Pit River Falls in the canyon two miles above the site marked for Pit River No. 1 development. View at lower left is the Pit at Fall River Mills, where at the right can be seen the point where Fall River empties into the parent stream. The picture at the lower right is of the Pit River at the suggested point of intake for the power plant immediately below Peck's Bridge.

## *The Pit River Region A Veritable Water-Power Wonderland*

By FREDERICK S. MYRTLE.

EARLY in the present fall our company's president stood upon a river bank and watched a body of foam-topped water tumbling over rocks in haste to pour its turbulent energy into the placid stream a few feet away.

"Some water," remarked the president, turning to the chief engineer.

"Fifteen hundred second feet," replied the latter.

"H'm," mused the president. He knew something about water, for a portion of

his busy life had been devoted to the unraveling of a great water problem that vitally concerned the residents of the community in which he lived. "Fifteen hundred cubic feet per second. That means, in round numbers, a billion gallons per day. Why, one month's flow would be sufficient to supply San Francisco, Oakland and the cities around the bay for a twelvemonth and leave a surplus."

"Yes," replied the engineer. "Allowing



View on Hat Creek above Cassel. The snow-capped mountain on the right is Burney, on the left McGee Peak.



Rising River Lake, part source of the stream that feeds Hat Creek.

an average consumption of one hundred gallons per capita per day, which is a pretty liberal allowance for any big city, the water you see tumbling over those rocks would supply a city of ten million inhabitants. And, as yet, there ain't no such animal."

The scene of the picture was hard by Fall River Mills, a picturesque little community in the northeastern corner of Shasta County that holds place as a distributing center for the industries, mostly agricultural, of the valley of that name. The point at which Mr. Creed and his party stood was the junction of the Pit and Fall Rivers. The occasion was an inspection trip taken by our president shortly after his assumption of the re-

sponsibilities of office, with Mr. John A. Britton and Mr. P. M. Downing as his chief escorts.

The fame of the Pit River as an abundant stream of constant flow regardless of climatic conditions and independent of reservoir storage had spread far and wide through the land ever since, in the early part of 1917, the announcement went forth that our company had purchased from the Mt. Shasta Power Corporation its valuable water rights on the Pit, and that when those water rights had been developed into horsepower of electric energy there would be an end, so far as concerned north-central California, to all fear of power shortage. Since that time a series of dry winters had brought



View of Hat Creek and Crystal Lake Ranch taken from the ridge by Cassel.

consternation upon the power companies and the industries dependent upon their output. The Railroad Commission of the State of California, having jurisdiction of all public utilities, had found it necessary, through its Power Administrator, to curtail the use of power right and left and to impose conditions as to hours during which the farmer might operate his pumps. In this hour of stress, then, all

and the watersheds supplying them held no moisture. Under such conditions the layman, or even the engineer unacquainted with the geological formation of the Cascade region, might be forgiven for taking our optimistic statements concerning the ever abundant flow of the Pit with a grain of salt, so to speak. True, the Sacramento River continued to pour several thousand cubic feet per second



Powerhouse site at Hat Creek No. 1 in its early stages of construction.

eyes were turned to the Pit, and in the hearts of all concerned there was general rejoicing when announcement was made, in the late spring of this year, that surveys had been made, locations for the first available power sites agreed upon, the necessary approval of the Railroad Commission secured, and the word given to go ahead.

All this year, and until quite recently, the power shortage was more acute than ever in the history of our Golden State. In the Sierra Nevada reservoirs ran low

into the bay of San Francisco, and it was generally known that the Sacramento depended mostly upon the supply of the Pit and McCloud Rivers for its message-bearing volume; but it really did seem to the average person that the unusual climatic conditions prevailing throughout the State must be reflected even in that wonderful region where it was said that rivers sprang out of the ground, coursed through valleys a few feet beneath the surface of the soil and performed other and more wonderful tricks that seemed to

trespass upon the laws of nature as evidenced and obeyed in other parts of the country. Well, if ever there was a time for testing the truth of these reports it was this year, and now all that remains to be said upon this point is that the Pit River, with its tributaries, stood the test nobly and all during the dry summer months carried sufficient water oceanward to substantiate every report upon which our company's hydro-electric program in that section of California was based.

The extraordinary difference between water - power conditions in the Cascade region as compared with the region of the Sierra Nevada is one of geological formation, we are told. It is just the difference between lava and granite, the latter acting as a cup and the former as a sponge; hence

the underground storage that causes abundant streams to appear to leap out of the ground at will. Striking illustrations of this in the territory covered by our company's operations are afforded by the Fall River itself, Rising River, Hat Creek and Burney Creek, all tributaries of the Pit and without whose helpful quotas that widely advertised stream would be puny indeed.

At this point it might be well to comment a little upon the geological forma-

tion of this water wonderland. According to geologists, this section of northeastern California was originally an area of low elevation, an extension of the Sacramento Valley, in fact, after the Coast Range and the Sierras were formed. Then came the Cascade Range, extending from Washington to Oregon and into northeastern California, and whose southern line, roughly speaking, lies along the

north fork of the Feather River. This Cascade Range closed the gap between the Coast Range and the Sierras. Marked by two sentinel peaks, Mt. Shasta and Mt. Lassen, it formed a dam or series of dams across the outlet of what was an extension of the Sacramento Valley into northeastern California and formed the Pit River basin; covering an area of about 5000 square miles. Similar dams were



Line of the penstock at Hat Creek No. 1.

formed across several branch streams of the Pit, including Fall River, Rising River, Crystal Lake and Burney Creek. The water falling upon this immense lava plateau largely sinks through the lava, and being cut off from direct outflow by the lava flow across the old stream channels is stored in lava-covered basins and emerges in very large springs, almost perfectly regulated.

Such is the explanation furnished by geologists of the remarkable water con-



The camp at Hat Creek No. 1 development.

every year during the ordinary low-water season more than a million acre feet of water. Usually the water supply for a California power plant has to be estimated and calculated for different previous years in order to obtain anything like an accurate idea of the water available for which the plant should be designed. The

ditions of the Pit River basin upon which about eighty per cent of the low flow of the Sacramento River at Red Bluff depends. The Pit has its main source in several large springs which originate east of the summit of the mountains in large underground storage in the lava beds of northeastern California, which are found at the southern end of the Cascade Range. These springs originate at elevations of about 3220 to 3350 feet above sea level. They have practically a constant flow the year round, an average in the aggregate of about 2500 cubic feet per second. The daily flow from these springs totals about 5000 acre feet and supplies

granite Sierra streams all require water storage to carry the stream flow through the low-water season and full draft from storage must usually be provided for about five months in order to assure a supply for the low-water period. The Pit River water sources are entirely different, as there is already underground storage



Hat Creek flows past the old town of Cassel.





Crystal Falls at Crystal Lake Ranch pour their contents into Hat Creek.

to maintain the power output at almost constant pressure. There is what is called a low-water period of about four months, caused by irrigation, diversion and evaporation, but this plays an insignificant part in the grand total. Before our engineers undertook final recommendations they took current meter measurements at various points, these measurements extending from 1901 to 1917. The following results are given:

Fall River at Fall River Mills, maximum flow 1543, minimum 1280 second feet.

146 second feet. It will be observed from this table that the difference between maximum and minimum flows in these streams is unusually slight, so that the mean flow is of considerable volume. For all practical purposes all you have to do is to add up the totals and there you get an excellent notion of the water available for power purposes at all times of the year in the territory covered by our company's operations.

The territory itself is a sort of plateau or table-land lying a trifle over 3000 feet

Hat Creek at Crystal Lake Ranch and Carbon, maximum 701; minimum 583 second feet.

Rising River above Cassel, maximum 655; minimum 312 second feet.

Crystal Lake at Crystal Lake Ranch, maximum 201, minimum 155 second feet.

Burney Creek below Burney Falls, maximum 246, minimum



Crystal Lake, on the Baum Ranch, half a mile from Hat Creek No. 1.

above sea level. It is a territory known to the angler as well as to the lumberman, for both the McCloud and the Pit afford fruitful sport to the disciples of Isaak Walton. The McCloud is, perhaps, the better known of the two, for there are beautiful summer residences scattered along its banks, but I venture to predict that when the Pit River country has been opened up to the world through the medium of hydro-electric energy there will be added to the list of attractive vacation spots a tract of country worthy of more than passing notice. The climate is ideal, the scenery largely of a pastoral nature. It is, perhaps, lacking in something of the grandeur that distinguishes the Sierra Nevada; doubtless there is more of the romantic in gigantic reservoirs, deep, mountainous gorges and spidery flumes clinging to granite steeps than is to be found in the course of a deep-bosomed stream through placid meadowland. But, when power projects are to be discussed water counts.

So it comes to pass that our engineering department is hard at work upon the construction of three water power plants in the Hat Creek and Fall River section of the Pit River territory. This is not the original Mt. Shasta power project as presented to our company at the time of the purchase. That project is located farther down stream, at the Big Bend. It is a tunnel proposition and takes advantage of the twists and turns of the Pit River which give a drop of between 900 and 1000 feet in seven miles.

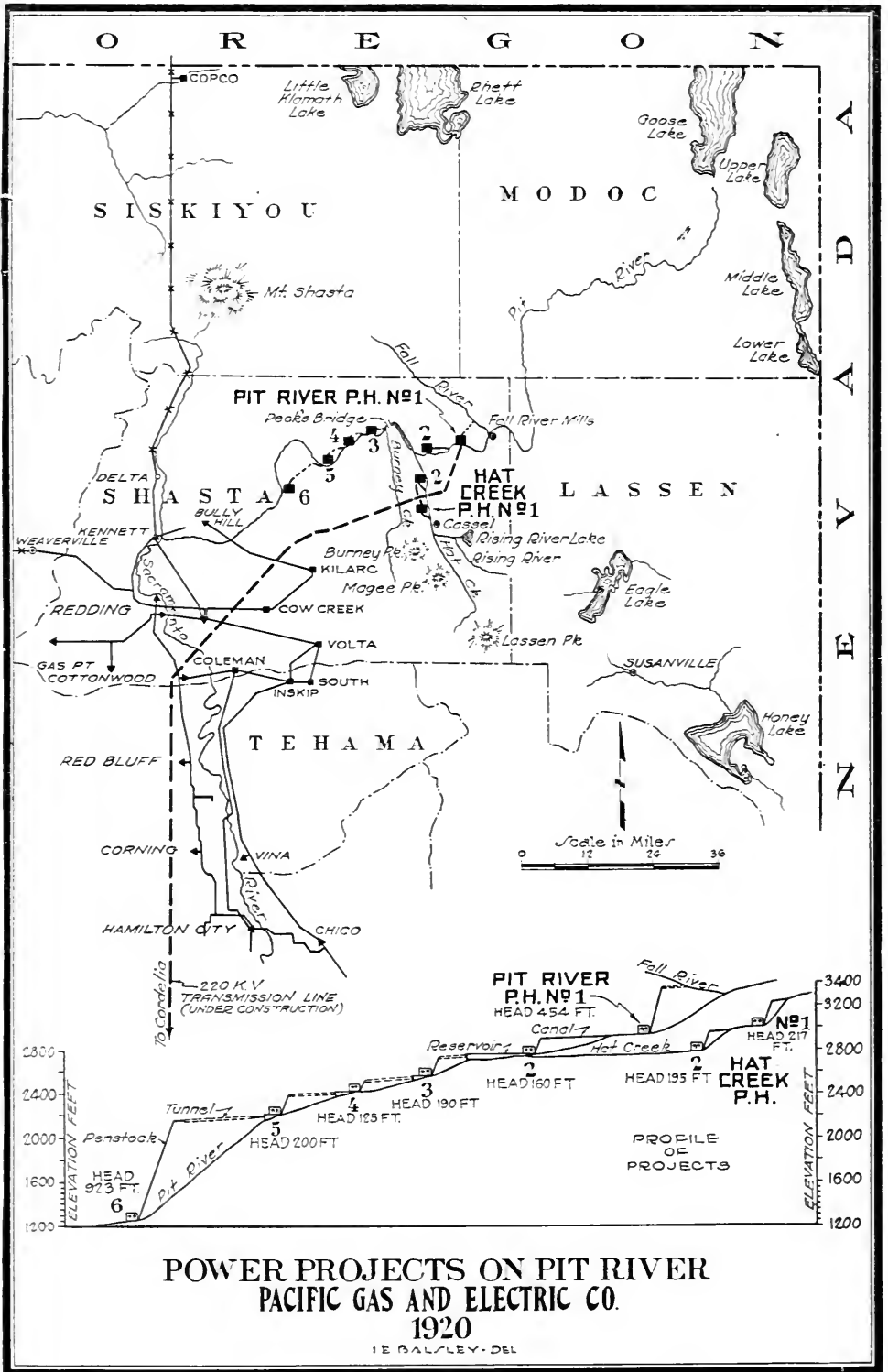
The old Mt. Shasta Power Corporation actually started work on this, but abandoned it for want of means to carry the project to completion. Then, when our company secured the water rights work was resumed, but it is a job of several years and involves an expenditure of something like seventeen million dollars.



A tranquil spot on Hat Creek above the Falls.

The former consideration, no doubt, had much to do with our company deciding to move farther upstream, for it was decided that no time should be lost in securing relief for our company's power consumers against the caprices of our California climate. Then, again, why not go farther upstream? The rights are ours and in the stretch of stream between Fall River and the Big Bend there is a string of power sites marked whose construc-





tion will provide ample energy for the immediate future. That Big Bend proposition won't run away; some day, in the not too far distant future it will be taken up again. It stands as an ace in the hole, so to speak.

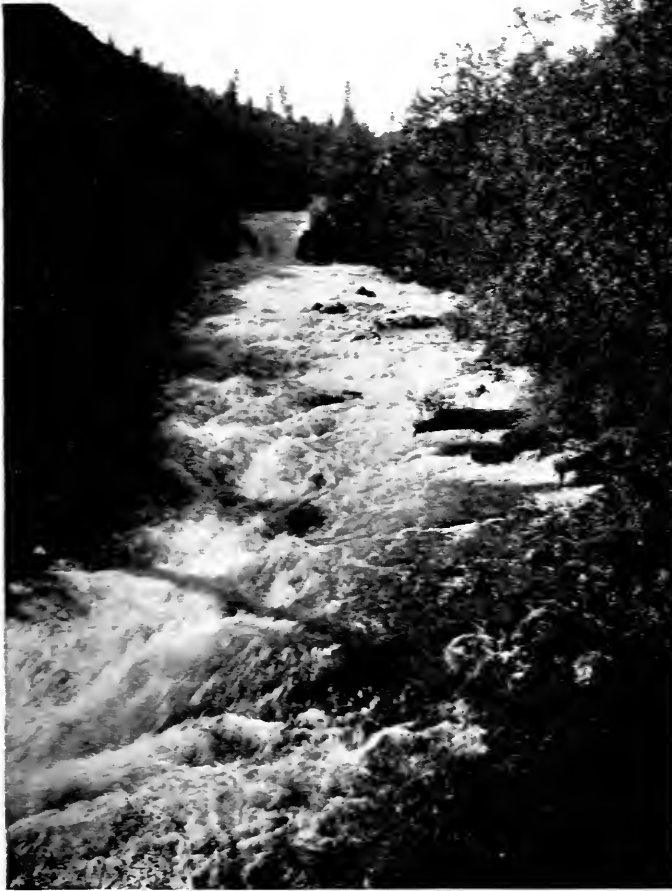
Two of the power projects now in actual process of construction are located

of its own energy out of the ground is used by the farmers of the district for irrigation purposes; it, therefore, shines with the reflected glory of another body of water, namely, Rising River, which has its origin partly in a lake and the balance in springs a short distance away. It seems incredible, but in

less than three miles of distance between its points of source and its junction with Hat Creek it contrives to convert the latter into a power-giving stream of the capacity stated in the foregoing table. In fact, Hat Creek below its junction with Rising River is generally estimated at being good for 600 second feet. Engineers say that Rising River has a greater average outflow than Lake Tahoe.

As before stated, Hat Creek passes through Cassel and courses valleyward on its way to the Pit. Between Cassel and the valley there is a ridge of considerable elevation and upon this the site has been marked for the forebay of Hat Creek Development No. 1. From this forebay a ditch runs for half a mile to the penstock, which

will be 1700 feet in length and convey the water at a drop of 217 feet to the power house now in process of construction at the junction of Hat Creek and Rock Creek. Now, Rock Creek is insignificant of itself and is apt to be overlooked in the general computation of water power sources available; yet it has a flow sufficient to supply the whole city of Oakland with water. This fact alone will



Hat Creek Falls below the point of diversion for No. 2 development.

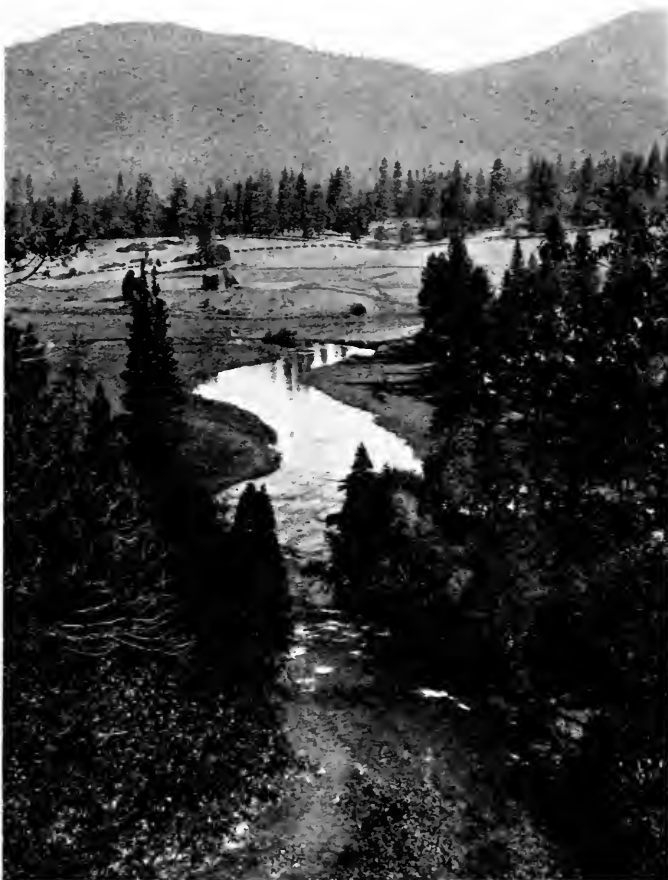
on Hat Creek, within a very few miles of that stream's junction with the Pit. Hat Creek rises in the higher levels overshadowed by the majestic Burney mountain and on its way Pitward courses through Cassel, a small town of the long ago that is now little better than a postal station. The real Hat Creek, as a matter of fact, is to all intents and purposes a dead river, for such water as it gathers

give the reader some idea of the extent of the undeveloped resources of that region.

At Hat Creek No. 1 Superintendent "Jim" Martin presides over a busy camp, pitched under the trees within half a mile of Crystal Lake Ranch, where Mr. F. G. Baum and his family are wont to spend their vacation. When I was up there in late September the power house foundation had been dug and the frame work was in process of construction. Since then, I am told, they have been pouring concrete. The penstock trench has been dug and with the news that a portion of the machinery equipment is already on its way from the East there is every reason to believe that Mr. Downing, who is in charge of all the Pit River construction work, will have this plant ready for operation by the early spring. The power house equipment will consist of a vertical turbine of 15,000 horsepower capacity attached to a 12,500 K. V. A. electric generator.

Two miles lower down stream is the site marked for Hat Creek No. 2. By this time Hat Creek has passed through Crystal Lake Ranch and has been reinforced by the water from Crystal Lake, as well as some springs which contribute an additional total of about 50 second feet. The course of the stream lies through a small canyon edged by lava beds which help to tell the story of that water-giving region. The point of diversion is above Hat Creek Falls and the water will be conveyed down the

canyon by a flume 4700 feet in length and of capacity 16 feet wide and 8 feet deep. This, by the way, is wide enough for two automobiles to drive side by side. The power house site is at a point where the stream branches away from the canyon and courses through the valley to join the Pit River at no great distance away.



Site for Hat Creek Development No. 2.

Here the head will be 195 feet and the power house equipment of the nature and same capacity as the other. Hat Creek No. 2 will be more important than Hat Creek No. 1, for here the big transformers will be located which will step the power up to sufficient voltage for the cross-country line now in process of construction between Hat Creek and Cottonwood, 60 miles away.



The Hat Creek-Cottonwood transmission line right-of-way. Picture taken at a point where the line crosses the road on Burney Hill near Terry's Mill.

When I was up there they were rapidly clearing the right of way for that transmission line, which will be partly of wood-pole and partly of steel-tower construction. The way is all clear now and they are starting on the erection of the poles. About a hundred men were employed upon the right of way, mostly Pit River Indians. These, I was told, are first-class woodsmen. "They go through the

timber like scythes," observed my informant. When the transmission line from Hat Creek to Cottonwood is completed it will connect with our Northern California transmission system and will operate for the present at 60,000 volts. There is, however, in process of construction a double-circuit steel tower line from Cotton-

wood to Cordelia, a distance of 156 miles. and when this is completed the voltage for the transmission of energy from the Pit River region to Cordelia will be raised to 110,000. This, again, will be increased to 220,000 when all the new developments are in full swing and there is established an uninterrupted service of electric energy from the Pit River to the bay of San Francisco.



Fall River Mills lies pleasantly upon a plateau above the Pit River.

The two Hat Creek plants, as I have said, are being rushed to completion with all speed. A third development of far greater value in horse power energy has been started, and this marks the first of the Pit River chain. About two miles from the mouth of Fall River is the point of diversion and the water will be carried by tunnel across country in a southwesterly direction, and, taking advantage of

than 60,000 horsepower of energy. It will be generated at 11,000 volts and by means of two banks of transformers, one for each machine, will be stepped up to the necessary voltage to tie in with the rest of the system. Pit River No. 1 will be in operation by April, 1922.

At the junction of Fall River and Pit River there is at the present time a small power plant in operation for the construc-



Fall River pours 1500 cubic feet per second of power-giving water into the Pit River at Fall River Mills. Temporary power plant at the right.

the twists and turns of the Pit River, will furnish a 454-foot head for a power house site in the Pit River canyon about two miles below Pit River Falls. The tunnel, contract for which has been let and work started, will be 10,040 feet in length. The power house equipment will consist of two vertical turbines of 40,000 horsepower, maximum capacity, and two electric generators each of 35,000 K. V. A. capacity. The engineers estimate that this plant will yield an average of not less

than 60,000 horsepower of energy. The machinery for this was taken from the auxiliary plant at Folsom and is of 1000 horsepower generating capacity. When this plant has served its purpose it will be abandoned.

Three miles lower down stream and near the junction of Hat Creek and Pit River another power house site has been marked for later development. This is below the Pit River canyon and the head is but 125 feet, but when constructed this plant will contribute an average of 15,-

000 horsepower to the grand total. This development will be called Pit River No. 2. Possibly, however, the next development to be taken up after Pit River No. 1 will be a development below Peck's Bridge. At that point the Pit River has been reinforced by Hat Creek, Burney and other springs of minor importance, so that its average flow exceeds 2500 cubic feet per second. At this point I desire to

road and I'll show you something."

We left the road at the place indicated and there I saw what would have looked like a stagnant pool had it not been for bubbles I saw coming up to the surface. The pool appeared to come from nowhere. It seemed to have no reason for its existence, certainly not at the ending of an unusually dry summer season. Yet there it was, and by the almost imperceptible



View on the Pit River at a point between Fall River Mills and the Pit Canyon.

say that at Burney Creek I obtained ocular evidence of the miracles wrought in that region by underground springs. Less than half a mile above the famous Burney Falls I was shown what looked like a dry creek, a trail through the woods of a bed of loose rock whose porous appearance showed its lava origin.

"That's Burney Creek," said Mr. Grover Green, field engineer on the big job, who was acting as my escort that day.

"Burney Creek," I echoed. "why, the Falls are just a little way off. I can hear them."

"Exactly," replied the engineer. "Now come with me a short distance down the

bubbles that revealed its underground springs that pool gathered sufficient volume of water to pour 160 second feet over the falls not much more than a quarter of a mile below! It sounds inconceivable, but it is absolutely a fact.

Through these miracles, then, the Pit River swells from a modest stream of about 50 second feet above its junction with the Fall River to a majestic body of water that is ready at all seasons of the year to place 2500 cubic feet per second at the disposal of the power developer.

The exact site for the first plant below Peck's Bridge has not yet been chosen. It is to be a tunnel proposition, and

geological formation will have a lot to do with the decision, but according to our engineers' estimates an additional 100,000 horsepower of electric energy awaits development there, and so it stands marked upon the construction program to be taken up in the regular order of things as occasion shall require. This



Fall River at a point just above its junction with the Pit.

project also involves the construction of a 100-foot dam which will back the water up a distance of six miles to Pit River No. 2.

There are other power sites marked between Peck's Bridge and the Big Bend, but these are for a future date and need not be dwelt with in this article. Then, as I have stated, there is the Big Bend site itself, the beginning of which lies sixteen miles down stream from Peck's Bridge. So that, you see, there is something like 400,000 horsepower of hydro-electric energy available to our "Pacific Service"

enterprise in a stretch of stream not thirty miles in extent.

Altogether, it's a wonderful country. You can stand on the top of the ridge overlooking Fall River Mills and take in the great sweep of watershed, with Mt. Shasta at one extremity and Mt. Lassen at the other. You can verify for yourself, without being either a geologist or an engineer, all that is claimed for its river sources. There is practically no run-off in that country: all the water sinks into the ground. Rivers generate of their own accord, and all that is seen of their



A scene on the Pit River below the Canyon.



sources is a collection of bubbling springs emerging from mother earth. Fall River, by far the most important tributary of the Pit, rises in the Modoc County lava beds less than 15 miles from its mouth where, as already related, it pours 1500 cubic feet per second into the parent stream. Crystal Lake and Burney Creek rise in the same mysterious way, and the water from either of these would supply all the cities around the bay of San Francisco and leave something over.

The lava formation which makes all this possible is in evidence on all sides. Great piles of blackened rock, looking for all the world like slag from a smelting furnace, rise out of canyons, and loose porous rock is spread here and there over the landscape. There are signs of volcanic action every-

where. The crater of Burney Mountain is a stately reminder of the things that were. Another geological freak is to be found in the volcano chimneys, a sort of vent-pipes, that are usually to be found in such regions three or four miles away from the scene of volcanic activity.

There is a color of romance, also, in that region; for there the Modoc Indians were wont to descend from their north fastnesses and do battle with the Digger Indians of the Shasta country. Engineers, miners and other prospectors even now occasionally pick up arrowheads, relics of old days of Indian battle.

An incident worthy of notice occurred during the excavating for the power

house site at Hat Creek No. 2. A number of human bones and other relics were unearthed, showing that this was the site of an Indian burial ground.

It is all well worth a visit. The camp at Hat Creek No. 1 is the central point just now, and there are two ways to reach it. You may drive in from Dunsuir, joining the McCloud road near Sisson, and passing through McCloud journey on to Bartle, an old lumber station and the terminal of



A volcano "chimney" on the high road to Fall River Mills.

the McCloud, Bartle Railroad from Sisson. At this point our company has leased the McCloud River Lumber Company's hotel and a portion of its warehouse, and has built a separate warehouse of its own and an unloading platform. At present all machinery and supplies for the various plants in course of construction are carried along the railroad from Sisson to Bartle and from that point are taken by truck to their various destinations. Hat Creek No. 1 is 35 miles from Bartle and Fall River Mills about 30. There is a road connecting Hat Creek and Fall River, a distance of about 14 miles. The roads are not boulevards, by any means, in that country, as yet, but the distances are not





Burney Falls contributing 160 second feet to the wealth of Pit River.

over great, and every possible convenience is arranged for the comfort and housing of the truck drivers, even to the establishment of relay stations on the Bartle road. Another way into Hat Creek is from Redding, a distance of 68 miles. The way leads through Ingot, Round Mountain, Montgomery Creek and Burney. The illustration in this article of a portion of the Hat Creek-Cottonwood right-of-way was taken on this road while crossing a saddle of Burney Mountain.

Around the construction camps one meets types. Men float in and out like boarders at a summer resort. Still, in face of every labor difficulty the camps run on, and it is within the bounds of fact to state that, so far as is known, ours is

the only outfit on record that has not had to work short-handed. The official man-catcher at Hat Creek camp is one Jeremiah Shelley, a tall, sandy-whiskered Irishman who has done all kinds of labor in his life and is still at it, although, to help out his wages, or commissions, or whatever they are, he owns ranches and mules and things and has enough money to make many a city aristocrat happy and comfortable for life. Still, he works on in his blue shirt and overalls, seven days a week, varying the monotony once in a while with a trip to Sacramento for a fling at the movies.

Jim Martin has a first-class organization around him. The foreman at Hat Creek No. 2 is Frank Durnin, an old employee. An interesting type is found in Jim Fitzpatrick,

foreman at the Hat Creek end of the Cottonwood transmission line. He is 65 years of age and he came into that country forty years ago as a Government surveyor. He has remained there ever since, ranching most of the time. Henry Van Erkelens, who has for years been on every important construction job for the company, is in charge of building construction at Hat Creek No. 1.

It has been truly said that the civilization of the future will be measured by the consumption of kilowatt hours per capita. Calculations are being made which look decades ahead, new projects marked for development in the years to come when present resources shall be overtaxed by the ever-increasing demand for power.

## Public Utility Companies Must be Treated Fairly

[Reprinted from the San Francisco Daily Commercial News, issue of November 12, 1920]

Declaring that criticism of the California Railroad Commission is usually based on misstatements of a fact or a purpose, Edwin O. Edgerton, president of the Commission, in an address at a meeting of the League of California Municipalities held at Chico, told the representatives of the several score of California towns and cities present that they owed it to their constituents to fully inform themselves as to public utility matters before venturing to advise them. "It is important," said Mr. Edgerton, "that you do not by misstatement, either purposely or ignorantly, shake the confidence of the public in so important a matter as the regulation of public utilities." He emphasized the importance of the work of the Commission by declaring that hundreds of millions of dollars must be invested in this State by utility investors within the next few years and that California progress will be seriously retarded unless the investor is given assurance that his investment will be dealt with fairly and intelligently. After a reference to the Commission's orders in rate proceedings in which he said that the Commission did not base its findings on guess work but upon exact information, the head of the California Commission said:

"Instead of criticising the Commission for thus promptly meeting emergencies, in my judgment it should be applauded. It has been demonstrated in California that public officials will carry out the mandates of the constitution and the law and do the intelligent thing even at the expense of temporary unpopularity.

"An answer to most of the objections that have been made to actions of the Commission," said Mr. Edgerton, "would be an exposition of the facts.

"It must be clearly understood that if California is to progress industrially there must be an immense increase in the facilities of the companies performing public utility service. Expressed in terms of money, this will mean several hundred million dollars in the next few years. It must be admitted that there is no power to force investment in the securities of these companies, and sound

policy becomes of vital importance in an assurance to the investor that his investment will be dealt with fairly and intelligently, else he will refuse to come in, and progress in the development of California will be seriously retarded. It may fairly be said that California today has a good reputation over the country because of its attitude towards the public utilities. The impression is abroad that the California Commission will not confiscate money honestly invested, nor on the other hand will it permit extortion at the expense of consumers."

"I will make the assertion without qualification," declared the head of the California regulatory body, "that notwithstanding the substantial increase of rates generally accorded by our Commission to the public utilities there has been no profiteering in this business in California. It is ridiculous to assert that where a profit of 6, 7 or 8 per cent is accorded on investment this is profiteering." Concluding his address, Commissioner Edgerton said:

"We might summarize our attitude towards investors in public enterprises in California by saying: We recognize your investment will result in common good. You are about to become a partner in an enterprise which will develop the community. We realize that the constitution of the United States and of California and the laws enacted thereunder are designed to protect your investment against confiscation. We are in full accord with the spirit of these laws and propose to proceed in accordance therewith. Furthermore, we believe it to be sound policy and in the interest of the public that your investment be protected and that you be accorded reasonable returns thereon, recognizing, of course, that some risk attaches to all private enterprise. At the same time we inform you that you will not be permitted to make exorbitant profits nor will you be permitted to burden the consumers with poor service. Having said this to the investors, we should carry out our pronouncements honestly and consistently, not only as a matter of honor, but in the interest of the progress and development of the State."

## *Our "Pacific Service" Forces Reorganized*

### *Departmental Responsibilities Definitely Distributed Among Executive Heads, Advisory Committees Named, new Positions Created, Territorial Divisions Realigned*

Reorganization of the executive, administrative and operative forces of our company was announced by President Wiggington E. Creed, November 1. The main feature of this reorganization is a precise distribution of responsibility among the executive heads of the organization and the appointment of a number of committees to act in an advisory capacity. Also, there are created the new positions of Vice-President in Charge of Public Relations and Service, Director of Engineering and Executive Engineer.

The following are announced as constituting the "Pacific Service" organization:

**Executives:** President; First Vice-President and General Manager; Second Vice-President and Treasurer; Secretary; Vice-President in Charge of Electrical Construction and Operation; Vice-President in Charge of Public Relations and Service.

**Committees:** President's Advisory Committee; Engineering Committee; Gas Engineering Committee; Employees' Welfare Committee; Central Safety Committee.

**Departments reporting to First Vice-President and General Manager:** Engineering, Executive Engineer, Law, Rate, Claims, Property, Land and Tax.

**Departments reporting to Second Vice-President and Treasurer:** Secretary and Assistant Treasurer; Purchasing, Supply, Credit and Collections, Accounting, Stock Sales.

**Departments reporting to Vice-President in Charge of Electrical Construction and Operation:** Electrical Construction, Electrical Operation.

**Departments reporting to Vice-President in Charge of Public Relations and Service:** Commercial, Publicity, Gas.

Under this reorganization plan President Creed, as executive head of the company, will give special attention to major financing, regulation and the general policies affecting the operation and development of the company.

Mr. John A. Britton, as First Vice-President and General Manager, will be

in charge of the general operations of the company, and specialize in all matters relating to construction, operation and maintenance; contact with Federal Water Power Commission, competitive conditions and relations with other operating companies.

Mr. A. F. Hockenbeamer, as Second Vice-President and Treasurer, will be in immediate charge of the company's finances, accounting, purchasing and warehousing.

Mr. P. M. Downing, as Vice-President in Charge of Electrical Construction and Operation, will have control of all electrical construction, maintenance and reconstruction; the operation of all hydro-electric and steam power-houses, transmission and distribution lines and substations connected therewith, the street railway system at Sacramento and all water systems of the company.

Mr. F. A. Leach, Jr., as the newly appointed Vice-President in Charge of Public Relations and Service, will have control of all commercial activities, public relations, division managers and offices under them, and the gas manufacturing and distribution departments.

**Committees.** The President's advisory committee will consist of: The President, who will preside at all meetings; First Vice-President and General Manager; Second Vice-President and Treasurer; Vice-President in Charge of Electrical Construction and Operation; Vice-President in Charge of Public Relations and Service; Executive Engineer; Attorney; Attorney Rate Department. This committee will discuss with the President matters of general policy and important matters relating to operation.

The Engineering Committee will consist of: First Vice-President and General Manager; Vice-President in Charge of Electrical Construction and Operation; Executive Engineer; Director of Engineering; Engineer of Production and Transmission; Engineer of Distribution; Engineer of Operation; Engineer of Construction. This committee will meet with

the President to discuss engineering policies and designs.

The Gas Engineering Committee will consist of: Vice-President and General Manager; Vice-President in Charge of Public Relations and Service; Engineer of Gas Department; Executive Engineer. The President will attend meetings of this committee, which will be called by the Vice-President and General Manager to discuss all matters relating to engineering policies and designs.

The Employees' Welfare Committee will consist of the President, Vice-President and General Manager, Vice-President and Treasurer, Vice-President in Charge of Public Relations and Service, Manager of Claims Department, President of the Pacific Service Employees' Association and a member of the Employees' Association elected at large. This committee will have charge of all matters pertaining to the welfare of employees of the company.

The Central Safety Committee will consist of: Vice-President in Charge of Public Relations and Service, Vice-President in Charge of Electric Construction and Operation, Engineer of Gas Department, Manager of Claims Department. This committee will have control of all local safety committees and all matters pertaining to accident prevention.

The Vice-President in charge of Public Relations and Service will preside over the two last-named committees.

The Department of Engineering will consist of the Director of Engineering and Engineers of Hydraulics and of Production, Transmission and Distribution. The department will have direct charge of the design of all hydro-electric plants and water supply therefor, steam plants and substations to be hereafter erected, and design and put into effect standards governing all equipment of power houses and substations; design all transmission and distribution lines, and design or specify all switches, transformers, meters and other apparatus to be used in connection therewith. This department will have the duty of investigating and reporting on all possibilities of power development which may affect the interest of the company.

The Department of Executive Engineer will have charge of the preparation of rate schedules and the collection of all data relating to the physical properties of the company. In all matters dealing with the Railroad Commission this de-

partment will function with the Rate Department.

In addition to the new duties and responsibilities to be undertaken by Mr. P. M. Downing and Mr. F. A. Leach, Jr., in their respective offices, Mr. A. H. Markwart, formerly of this company, is appointed to the position of Director of Engineering, and Mr. W. G. Vincent, Jr., until recently Valuation Engineer, is appointed Executive Engineer.

Following the above a plan has just been worked out for the redistribution of our "Pacific Service" territory into twelve main divisions to take the place of the old districts. These divisions are as follows:

*San Francisco Division*—Headquarters San Francisco, consisting of the city and county of San Francisco.

*San Jose Division*—Headquarters San Jose, embracing San Jose and Redwood Districts.

*East Bay Division*—Headquarters Oakland, embracing Alameda County and Contra Costa County District.

*North Bay Division*—Headquarters San Rafael, embracing Marin-Sonoma, Santa Rosa, Napa and Vallejo Districts.

*Sacramento Division*—Headquarters Sacramento, embracing Sacramento, Yolo, and Solano Districts.

*San Joaquin Division*—Headquarters Modesto, embracing Stanislaus, Tuolumne, San Joaquin and Electra Districts.

*Drum Division*—Headquarters Auburn, embracing Placer, Drum and Nevada Districts.

*Colgate Division*—Headquarters Marysville, embracing Marysville and Colgate Districts.

*De Sabla Division*—Headquarters Chico, embracing Chico and De Sabla Districts.

*West Side Division*—Headquarters Willos (temporary headquarters will be maintained at Red Bluff until further notice), consisting of the Northern District as now constituted.

*Shasta Division*—Headquarters Redding, consisting of the Shasta District as now constituted.

*Fresno Division*—Headquarters Fresno, consisting of the Fresno District as now constituted.

Details as to appointments, etc., under this division system will be furnished in a circular letter to be issued from the office of the Vice-President in Charge of Public Relations and Service.

## *The Financial Side of "Pacific Service"*

Following is approximate condensed Income Account Statement for the ten months ended October 31, 1920, compared with the same period of the preceding year.

### TEN MONTHS ENDED OCTOBER 31ST

	1920	1919	INCREASE
Gross Earnings, including Miscellaneous Income .....	\$28,914,815.09	\$21,714,428.98	\$7,200,386.11
Maintenance and Reserve for Depreciation .....	3,496,326.72	2,612,987.97	883,338.75
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts .....	16,973,495.49	11,772,695.33	5,200,800.16
Total Expenses .....	\$20,469,822.21	\$14,385,683.30	\$ 6,084,138.91
Net Income .....	8,444,992.88	7,328,745.68	1,116,247.20
Bond and Other Interest .....	4,073,375.89	3,532,622.53	540,753.36
Balance .....	\$ 4,371,616.99	\$ 3,796,123.15	\$ 575,493.84
Bond Discount and Expense .....	246,408.28	173,268.79	73,139.49
Balance .....	\$ 4,125,208.71	\$ 3,622,854.36	\$ 502,354.35
Additional Depreciation Reserve .....	833,333.34	833,333.34	.....
Surplus .....	\$ 3,291,875.37	\$ 2,789,521.02	\$ 502,354.35
Dividends Accrued on Preferred Stock .....	1,508,682.10	1,279,769.59	228,912.51
Balance .....	\$ 1,783,193.27	\$ 1,509,751.43	\$ 273,441.84
Dividends Accrued on Common Stock .....	1,416,835.75	1,416,835.75	.....
Balance .....	\$ 366,357.52	\$ 92,915.68	\$ 273,441.84

For the benefit of the hundreds of new stockholders who have become partners in "Pacific Service" since our last publication, we repeat the explanation heretofore made that the increase of \$7,200,386 in the volume of the Company's business in the first ten months of the present year, as compared with the same period of 1919, is attributable in about equal proportions:

- (a) To the normal growth of business;
- (b) To the taking over of the properties of the Northern California Power Company and the Sierra and San Francisco Power Company, the former by purchase on October 1st, 1919, and the latter by lease on January 1st, 1920.

The normal growth of upwards of three millions of dollars in gross is the largest the Company has ever experienced in any like period of its history and is paralleled by the net addition of 33,262 new customers.

The most important item in the above statement is the increase of \$1,116,247 in net income. This increase is, in a substantial measure, merely a reflection of the

larger investment the Company has in its properties. Its "Plants and Properties" account on October 31st, 1920, stood at \$163,070,197, an increase since January 1st, 1919 (the period covered by the above comparison) of \$23,754,201. This latter sum represents the additional investment made in a period of twenty-two months.

### BUSINESS DEVELOPMENT

At October 31, 1920, there were 562,825 customers receiving service from the Company, the net addition of 33,262 consumers in the past ten months being attributable solely to the normal expansion of the Company's business. If each of these new customers be considered as representing a family of four persons, this additional business would be equivalent to extending "Pacific Service" in the first ten months of the current year to every family in a city twice the size of Sacramento, or to the combined populations of Fresno, Stockton, San Jose and Chico.

Detailed tabulation of the gain in consumers during the past thirteen years is given below:

#### STATEMENT OF CONSUMERS BY DEPARTMENTS AS OF OCTOBER 31ST

	Gas Department	Electric Department	Water Department	Steam Sales Department	Total	Increase Each Year
1907.....	118,847	52,666	5,505	.....	177,018	.....
1908.....	129,044	60,164	5,744	.....	194,952	17,934
1909.....	136,791	68,318	6,332	.....	211,441	16,489
1910.....	149,440	81,050	6,673	.....	237,163	25,722
1911.....	163,679	97,207	7,200	63	268,149	30,986
1912.....	193,295	113,571	7,895	197	314,958	46,809
1913.....	205,479	128,871	8,325	258	342,933	27,975
1914.....	217,880	145,278	9,041	314	372,513	29,580
1915.....	227,534	163,577	9,562	365	401,038	28,525
1916.....	230,616	176,131	9,910	395	417,052	16,014
1917.....	241,031	191,449	12,520	427	445,427	28,375
1918.....	252,623	206,584	13,052	449	472,708	27,281
1919.....	266,572	226,286	13,296	424	506,578	33,870
1920.....	283,383	262,705	16,303	434	562,825	56,247
Gain in 13 Years.....	164,536	210,039	10,798	434	385,807	385,807

Total number of consumers served at October 31, 1920.....562,825

### SALES OF FIRST PREFERRED 6% STOCK

As a result of our recent offering of First Preferred Stock, 2,362 subscriptions, aggregating \$2,456,650, were received down to November 30th, 1920. This represents an average of about eleven shares per subscriber.

It is evident that California investors are awake to the unusual opportunity afforded of purchasing this high-grade security upon the favorable terms now offered by the Company.

One of the Company's directors has presented a share of this stock to each of his twelve grandchildren.

Why not make your boy or girl a similar gift for Christmas?

# Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - - BUSINESS MANAGER  
Issued the middle of each month

Year's subscription .....\$1.50  
Single copy..... .15

Published by the  
PACIFIC GAS AND ELECTRIC COMPANY  
at 445 Sutter Street, San Francisco

*The Pacific Gas and Electric Company desires to serve its patrons in the best possible manner. Any consumer not satisfied with his service will confer a favor upon the management by taking the matter up with the district office.*

VOL. XII      NOVEMBER, 1920      No. 6

## EDITORIAL

Figures presented to the California State Railroad Commission reveal the contemplated expenditure of upwards of five hundred million dollars in hydro-electric development in this State during the present generation.

And this half billion dollars represents the prospective outlay of only three power companies out of the many that operate within the confine of our great State! There are a number of others whose engineers are at work upon plans for the extension of hydro-electric activities commensurate with the prospective needs of the territories embraced by their operations. It will not be amazing, then, if before the list shall be finally completed the sum that will be needed to properly develop the wondrous natural resources of California into horsepower of electric energy will come near the billion dollar mark.

Think of it! Twenty years ago to talk of hydro-electric development in terms of billions would have been worse than ridiculous. Today we have reached just the second stage on our onward course. Just how far we will go no man can say. But it all reflects the spirit of the time, a spirit that stops at no obstacle; in whose light the word "impossible" holds no

place. And we of "Pacific Service" are proud to be in the front rank of the army of progress. Our prospective expenditure of \$135,000,000 involves the assumption of tremendous responsibilities by the executive heads of our organization to whom our stock and bond holders look for the protection of their interests. But the results to be achieved will be worth it all, and "Pacific Service" will reap its reward in the good will of a great community, a good will that can be gained by just one thing, and one thing alone, and that one thing is—SERVICE.

Our attention has been called to a recent address by President-elect Warren G. Harding before the American Electric Railway Association, in which Mr. Harding said some things worth remembering. To quote:

"In effecting the restoration we must wipe out the contributing cause and make sure from this time on that honest investment in honest public service shall receive an honest return for that service. The capital which seeks to render a necessary public service merits a square deal and must have it."

"I doubt the solution that lies in public ownership. It is well established that public ownership really ignores the pennies in the pockets of the people to draw the dollars from an impersonal public treasury."

"Old time values are out of harmony in the new era of money's changed measurements. Stable financing, righteous earnings and just returns must be based upon a proper charge for service rendered. The nickel is no longer the standard of riding value, because it passed as maximum when it ceased to be minimum and lost its relationship when custom recut the luncheon pie."

"I believe in strictest regulation without conflicting authority, because all public utilities must yield to the voice of public interest, but the same power that protects the public must protect the public service whether that servant is capital or the workman who operates the utility."

"Destroyed credits must be restored and flexible scales of charges must be provided so that the public must pay justly for that which it demands. The exploitation of ten or twenty years ago justified no failure in good faith today. The public which is served has an obligation no less than those who serve it."

"The swinging pendulum marks reversed condition, and the cycles of changed relationship are ever recurring, but it matters not what influence is temporarily potent, it is as harmful to destroy capital as it is hateful to enslave labor. Both factors are necessary to the people's good fortune and both must be safeguarded to maintain American eminence."

Mr. E. I. Lewis, chairman of the Indiana Public Service Commission, in an article written for the Illinois Committee on Public Utility Information, observed:

"If anything—such, for example, as exhaustion of coal supply—should happen to the great electric plants, not only would lights go out but machines in factories go dead, elevators stop, and men and women would be deprived of that work which is life not alone to them, but life and order to the city.

"If street cars do not move the modern city becomes stagnant and disorganized.

"Confusion would be born if telephones should go dead.

"The city faces starvation when gas fails.

"The modern city has become dependent on its water, gas, electric, street railway, telephone and other utilities. These are the modern city's vital functions—its great servants. They must be kept healthy so that when the call comes they may meet the demand.

"All stand through every moment of the year ready to serve—and they do serve—for very low wages. All of them, often, for less than the man of the house spends for cigars, the lady for chocolates, or the family for the movies."

#### ENGLAND'S PRINCE AND "PACIFIC SERVICE"

That our PACIFIC SERVICE MAGAZINE finds favor in high places abroad as well as at home is evidenced by the following communication addressed to Mr. Robert Reid Morison, of the Collection Department, San Francisco district:

H. M. S. "Renown,"  
Panama to Trinidad,  
Sept. 15, 1920.

"Sir: I am desired by The Prince of Wales to thank you for your letter of the 21st ultimo, and the accompanying copy of the PACIFIC SERVICE MAGAZINE. His Royal Highness much appreciates the good wishes contained in your letter, and

would be pleased, should you so desire, to accept an occasional copy of this publication.

Yours faithfully,  
(Signed) Godfrey Thomas,  
Private Secretary."

A receipt of a copy of this epistle lead the editor of PACIFIC SERVICE MAGAZINE to interview Mr. Morison on the circumstances dealing upon the facts and circumstances leading up to it.

"I have a brother in Scotland who served the first three and a half years of the great war in the British troopship service," said Mr. Morison. "He frequently wrote me of his experiences, and through his various letters I gathered the notion that his government officials were particularly interested in an important war industry in California, namely, the manufacture of charcoal for use in gas masks from fruit pits, an industry, you will remember, to which our company devoted a portion of its Potrero plant. Now, the Prince of Wales happened to be in California waters at the time of his trip around the world and it occurred to me that it might be of interest to him to learn the important part "Pacific Service" had played in this work. Accordingly, I got together a set of our magazines, among them the particular number dealing with this charcoal industry. I included, also, articles upon Lake Spaulding and other hydro-electric developments, and all that I thought might interest His Royal Highness, and I sent the package addressed to him on board H. M. S. 'Renown,' at Panama. As a result I received the very courteous communication which I sent to you."

Mr. Morison is quite an industrious booster for the magazine and sends it far and wide to relatives and friends across the water. Last September he received from one of these friends, Mr. Matthew McCallum of Motherwell, Scotland, a letter acknowledging receipt of the July issue containing an account of the annual dinner of our Pacific Service Employees' Association. In this Mr. McCallum wrote:

"I had a very fine evening reading your magazine. The relations between your company staff and employees shows the right sort of spirit. Therein is the secret of success. Should our firms here in Scotland just copy a little of it and the men themselves come off their perch, there might be found a way to quiet the industrial unrest."



## Tidings From Territorial Districts

### Alameda County District

Did you ever fall into the hands of bunco steerers? You don't have to be a country rube and come to the city as a green one, to get fleeced, Steve Lucich of Gas Station "B" says he will tell the world. He has laughed at the other fellow but never thought he could get caught on a sure thing.

Well, Steve met two country-men and the fact of their being of the same nationality was sufficient guarantee, even if they were strangers. One knew of a certain old man living in a shack under which there was a buried treasure. The place could be bought for \$1000. Each one of them should put up a third and they would *divide the spoils*. The two men placed their money in a tin box, all good currency, and Steve contributed a like amount. Steve was to hold the box while the two men were to go get the old man and close the purchase. They were to bring this party and be back at 2 p. m.

Steve held onto the box after it was closed. In fact, he kept it under his arm all the time while the finals were being discussed. Finally, the two men left to be back at the appointed hour. In a few minutes one returned saying that neither of them had a watch with him. He wanted to borrow Steve's watch so as to be sure to get back on time. Steve's watch was a good one and with the chain was worth \$100. But then Steve had over \$600 of their money, so of course he would accommodate the fellow. Steve was back on time with his carefully sealed tin box. He thought perhaps they were a little late. Still he waited. Finally he decided to investigate. Would you believe it? The box held nothing but old junk. Just listen; they not only got away with his money but beat him out of his watch. So Steve is still mystified.

#### AN EGG WAR IS POSSIBLE

It has always been considered that Petaluma had the inside track on eggs, and did not fear the competition nor envy the success of any other section in

chicken products. Petaluma as to the chicken business was regarded in the light that Fresno is as to raisins, and Santa Clara as to prunes. But here is a piece in a Hayward newspaper, the *Journal*, seriously discussing the advisability of branding each particular egg that may be laid in the Hayward poultry district to prevent its being sold as a Petaluma product. The situation is stated in this way:

"It looks to us that our poultry people to protect themselves, must brand each one 'Hayward egg.' It would not be very difficult to do this, and it is better to sacrifice a little time than to let Petaluma palm off our fine hen fruit as her own product. It may be that their eggs are deteriorating, and that they need our monster eggs to save their bacon. President Beam has learned of the same fact, and thinks it high time for our poultrymen to get together for mutual protection in this and other matters."

We innocent consumers in a perfectly neutral zone will look with complacency on this threatened egg war, though our interest will be quickened if competition or controversy fetches down the price per dozen.

On the evening of October 14, the employees of San Leandro and Livermore districts were given a dinner in honor of Mr. L. H. Newbert at Hotel Belvoir of Niles.

During the course of the dinner, Mr. W. W. Shuhaw and Mr. E. W. D'Ombraingave a brief synopsis of the duties of those present from their particular districts, of which there were six girls and twenty-four men, a most happy incident as far as the girls were concerned. Mr. Newbert gave a most interesting talk on incidents of his early days with the company, followed by a few remarks on service. After the dinner was over, the party adjourned to the living room where special music was enjoyed. Miss Helen Love of the Hayward office sang "The Sunshine of Your Smile" and "Kiss Me Again." E. W. D'Ombraing, manager of the Livermore district, sang "Mother Machree" and "I Love You Truly." Old

songs were then called for and the whole party gathered around the piano and sang to their hearts' content.

One could not help noticing the friendly "big family" spirit that prevailed throughout the evening and as the group broke up very late, it was with a hope that more of such parties might be forthcoming. It is such gatherings as this that make "Pacific Service" possible in the highest degree.

On Monday, October 25, the Oakland bookkeeping department gathered at the home of Mrs. Liez, the occasion being the general distribution of presents to the former bookkeeperettes. Those honored were: Mrs. Anderson, formerly Miss A. E. Esmond; Mrs. Parker, formerly Miss Cummings; Mrs. Armstrong, formerly Miss Robinson; Mrs. Dearmin, formerly Miss French, and Mrs. Liez, formerly Miss Christianson.

After refreshments, or probably because of them, Tess Brewer outdid Julian Eltinge by giving a series of male impersonations which were well received. A miscellaneous group of percolators, toasters, irons, etc., were presented to the brides, who will be reminded of their former service with the company at least once a month, when they get their electric bills. Daddy Lucks was on hand to lend dignity to the occasion.

Mr. W. E. Kelly, better known to his associates as "Willie," pride of the gas department, seldom neglects his morning duty of distributing among the young ladies one-third of a stick of gum, namely, "Adam's Pepsin." This particular brand seemed to please his customers until one day "Willie" made a change in gum. Since then he has been losing trade. The following letter was received by Mr. Kelly a few days ago:

"Mr. Willie Kelly: We, the undersigned, do hereby inform you we would like a change in gum. We do not crave 'Black Jack.'

"Your Customers."

"PACIFIC SERVICE"

#### *An Allegory*

Power, forceful, mighty and free,  
Able, Godlike in immensity,  
Carrying the giant of Industry,  
Imperial, crowned with shining light,  
Forcing the terrors to flee the night;  
Impartial, patient, calm and serene,  
Sounding a message to humanity.

Servant of the people with sinews of might,

Circling the land with a girdle bright,  
Resplendent and radiant with power and right;

Vanguard of progress, research and of fame,

Enriched by thy deeds is thy honorable name;

Comforts bringing to high and low,

Ever and ever on must thou go!

GEO. L. DONOVAN.

Some time ago Berkeley's line gang was called out on a midnight job to repair the high line into Ridge Station which was shorted by a wildcat endeavoring to do a tight-wire stunt. But our latest development was one which happened on the night of October 22, when a hawk shorted and burned down two phases of the Ridge-Elmhurst line. We are wondering if the State is going to demand that we have a hunting license.

Both of the above incidents happened on the longest span on the line, about 1500 feet over the San Pablo Canyon.

There is quite a demand on the part of the students of the University of California for the annual report of the company which they use in their accounting classes. They state that it is the most complete report they have been able to procure.

Berkeley office is still doing its bit in regard to sales of First Preferred stock, the October sales totaling 68 shares. We look for a better record in November.

The California-Washington football game, November 6, brought many familiar faces to Berkeley, and we sympathize with those employees who journeyed far hoping to see the Washington team take home the bacon.

Work on the ladies' rest room, Berkeley office, is progressing and we hope to report it completed soon.

A widely quoted article was published several weeks ago that New York University is first, but Chancellor Brown in his telegram explains that part-time students in extension courses were included in the figures for New York upon which that article was based.

The total registration in the regular courses of the University of California,

as just compiled by Recorder Sutton of the State University, is 11,154. Telegrams from other universities give the following registration of students in similar courses:

Michigan .....	8800
Columbia .....	8317
Illinois .....	8285
Minnesota .....	7437
University of Pennsylvania....	7000
Chicago .....	5728

In addition to enrollment in regular courses, university enrollment figures show students enrolled as follows in courses and lectures given by the university:

Summer session, 5140.

Farm schools and normal schools, 1500.

The university extension courses, 16,315.

University agricultural correspondence courses, 4431.

In these courses, 42,373 students have been enrolled since September, 1913: university extension lectures and recitals during the year ending June 30, 1920, 107,538.

Among the new industrial gas consumers in the Richmond territory is the Stauffer Chemical Company, which is experimenting with gas for treating acids. Then there is the California Cap Company, which has changed from oil to gas. The Metropolitan Match Company has a wonderful machine for handling matches which is almost human in its operation.

Richmond now has a real golf club. The Berkeley Country Club and golf links occupies a sightly location overlooking the city of Richmond, the bay and the Golden Gate beyond.

The Mechanics Bank building at Richmond is nearing completion and will be a stately building creditable to the banking interests of its founders and to the business growth of the city.

The magazine will begin a series of short articles on the early history of Alameda County, contributed by Geo. L. Donovan of Niles. Mr. Donovan has done much in original research and is considered an authority on the early Spanish days. He will be assisted by Miss May Ten Eyck, who has been a frequent contributor to these columns.

Sam Shepard is the official synchronizer of the Thirteenth Street office clock. He always compares his time with Bill Kelly before the official act. Sam relates this:

"Perhaps you are familiar with the works of Ingersoll," smilingly inquired the book agent. "Sure I am," replied Mr. Goldberg, "undt it's a good vatch for der money."

And this is Alameda County. Just listen. The *Boston Globe* is responsible for these kind words: "Any Californian will buttonhole you and tell what nature has done for his State, particularly for its southern portion. Those who have been out there to try it agree that near the Golden Gate lies the Garden of the Gods. It is a land of perpetual honey-moon, where the sun does not blister and frost does not bite."

KALOS.

#### THE GAS HOUSE TERRIERS CLUB

October 28, 1920, Thursday night, at gas station "B," the "Terriers" met and welcomed nearly 150 visitors at the station meter building.

The program was a success from the first wrestling match to the last event and the hot dogs and coffee were held back as a surprise. We wish to thank the P. S. E. A. here and now for their kindness in serving the feed.

Mr. L. H. Newbert, our district manager, was among those who kindly honored us with their presence and he addressed the club and offered us his backing, for which we sincerely and gratefully thank him. We will always be more than pleased to have him with us at our regular meetings. His membership in the club is earnestly desired.

Mr. R. E. Fisher enthusiastically congratulated us upon our work, our program, and our results, and we wish to invite him to come often. Support such as he offered us cannot be passed over without comment. We certainly appreciate the attitude of the P. S. E. A. towards us and stand ready to return favors at any time.

Mr. "Bud" Kearns, physical director of the Oakland Y. M. C. A., is deserving of considerable credit for the excellence of the program, for he spent nearly two days assisting in filling out and completing it. Mr. Anderson, his assistant, gave a special boxing exhibition, assisted by Mr. Tom O'Hara, old time boxing in-

structor. This is not the first time we have had the Y. M. C. A. interested in our work and the kindness of these men is exceeded only by their good looks.

The complete program consisted of several boxing and wrestling bouts, piano and flute, songs and speeches.

The presence of the numerous ladies was earnestly desired and gratefully appreciated. They will always be welcome. Please come again.

Mr. Van E. Britton, engineer of Gas Station "B," very kindly addressed the meeting, approved heartily of the club and its efforts to increase the good fellowship among the employees and said he was very glad to be with us. We were also exceptionally glad to have him with us and trust that he will be able to approve of our work always.

Miss Pearl Sturm of the women's section of the P. S. E. A. remarked that we were to be congratulated upon our success and also that she was pleased to be with us. We certainly ask Miss Sturm to always be with us and assure her a most cordial welcome.

We have heard from Mr. F. S. Myrtle, publicity manager of the company, and he says he is for us good and strong, and that he wants to be counted upon as one of our real supporters. There is not a chance of our going under when we depend upon such ardent admirers for assistance and we are deeply grateful for the outside interest taken in our work. Mr. Myrtle has a standing invitation to be with us on each and every occasion.

Very truly yours,

ARTHUR LYONS,

Chairman Gas House Terriers Club.

#### OFFICERS OF THE GAS HOUSE TERRIERS

Chairman, A. Lyons.  
 Secretary, K. B. Naismith.  
 Treasurer, H. Mann.  
 Chairman program committee, October 28th,  
 K. B. Naismith.  
 B. E. Tyler, assistant.  
 L. A. Fulton, assistant.  
 Announcer, W. Reinhard.  
 Referee boxing, R. B. Simpson.  
 Referees wrestling, W. Kearns and H. Anderson,  
 both of the Y. M. C. A.  
 Chief cook, H. C. Day.  
 Assistant, T. D. Clark.  
 Assistant, H. Mann.

#### DOGS AND COFFEE PASSERS

P. Wilson  
 R. Von der Heide  
 C. A. Perry  
 Piano player, C. Collins.  
 Flute, B. Windrom.  
 Singing, T. D. Clark.

#### SPEAKERS

Mr. Van E. Britton.  
 Mr. L. H. Newbert, district manager Alameda County.  
 Mr. R. E. Fisher, chairman P. S. E. A.  
 Miss Pearl Sturm, chairman Woman's Section,  
 P. S. E. A.

It is with deep regret that we announce the death of Augustus Hess.

Mr. Hess passed into the great beyond at the Samuel Merritt Hospital, November 3, 1920, after undergoing an operation. He entered the employ of the company in the Gas Meter Shop of the San Francisco Gas and Light Company in 1890 at the age of twenty-seven years. With the exception of some three years he has worked continuously for the company. In 1906, he came to Oakland in the gas meter department. Mr. Hess has been a dependable, faithful and conscientious employee always. Naturally courteous and of a kindly disposition, he will be missed by consumers and fellow employees alike.

Mr. Hess is survived by a widow, a son and a daughter.

#### Marysville District

Sutter County has just finished the harvest of the largest fruit crop in the history of the county. This, along with top-notch prices, is causing all the growers to wear a broad smile. It might be well to note that practically all orchards are irrigated from wells by the aid of "Pacific Service."

The announcement that the first carload of oranges shipped from Oroville is made up of tree-ripened fruit is but another illustration of the fact that the Oroville District is undoubtedly and indisputably the earliest citrus district in California.

The earliness of the district has been reflected over a number of years in the fact that the highest average price per box received by California orange growers has been that paid to the growers of this district.

Along with the many other industries in this section the aeroplane manufacture has not been overlooked. At the

present time the "Friesley Falcon," a 12-passenger plane, is under construction by the Friesley Aeroplane Company. When completed this ship will operate between San Francisco and Portland.

Work is also going on in the construction of one of the largest aeroplane manufacturing plants in northern California, which is to be situated on what is known as the Concoran property south of Gridley.

The pack of the 1920 olive crop has started at the various olive plants in Oroville. The market for olives is declared to be increasing in demand daily and all olives this year will be marketed. The new concrete vats at the Ehmann Olive Company were placed in use for the first time this month.

This plant is the largest in the State. It is 300 feet by 300 feet, half of it being two stories high.

Some idea of the growth of the Ehmann Olive Company can be gleaned from the fact that the company built the first ripe olive plant in the State in Oroville in 1898, just 22 years ago. The plant was 90 by 125 feet.

The first year Mrs. Freda Ehmann and four girls put up the entire pack. Last year there were 525 persons on the company's payroll.

According to the report of the U. S. Geological Service Yuba County leads the list in the production of gold, produced almost wholly at Hammonton by dredging, where operations are carried on entirely by use of "Pacific Service."

The following is a very striking evidence of the good that comes from local county fairs and expositions: Andrew Johnson, a farmer near Oroville, says:

"I came across the ocean and across the continent and out to California by the Western Pacific. I stopped in Oroville and there was an exposition being held there. I cannot tell you how the beauty of that exposition affected me. I had not thought that such a thing was possible. I was there every day and night. When it was over I started to look over California, but I could not forget what I had seen of Butte County. I went over California, but I came back to Butte County, and it was the orange and olive exposition that brought me."

ED. JOHNSON.

Marysville district has lost two employees, both of whom were members of the Pacific Service Employees' Association.

John Henry Lubmann, an employee of Marysville district for about seven years, excepting eighteen months spent in the U. S. Army overseas. "Hank," as he was generally known, was a loyal employee to the company and a popular comrade among his fellow-employees, and a gloom was cast over the district when he passed away, aged twenty-four years.

Louis Walter Johnson, an employee of Marysville district for five years, excepting one year spent in the U. S. Army, aged twenty-six years.

To his pals he was known as "Toby" and was popular among all. He took part in all amateur athletics of the valley, and during the past season played with the Colusa Ball Club.

His death came as a shock to his relatives as well as to his friends. He leaves a widow, Frances, who prior to her marriage was employed in the Marysville office, a mother, father and sister residing in Suisun, also four brothers, three of whom are employed by this company, R. H. Johnson, Redwood district, F. A. Johnson and E. C. Johnson of Marysville district.

### Chico District

The policy of the company is to recognize the fitness for promotion of its employees. For this reason we have lost our manager, Mr. Heryford, "Jack," as he is familiarly called by most of us. Mr. Heryford has been promoted to succeed Mr. Whaley as manager of the Northern District, a district three or four times the size of the present Chico District. While we of this district mourn the loss of his daily companionship, we are elated over the fact that he has gone to a position of greater responsibility; a promotion which he deserves.

Mr. Heryford, in nearly twelve years as manager of Chico District, has built it up from one working two or three office employees and four or five outside men to one employing a force of fifteen in the

office and fifty outside. By perseverance and hard work he has built up a fine organization and a district which he may well be proud of. After building up the district it has been taken away from him. To him it is like losing a very dear friend. But the success that will be his in his new work will amply repay him for the loss.

It is the interest he takes in and the consideration he has for the human element, which is so necessary in public service work and in the handling of men, that has made a success of his work in "Pacific Service." Standing out above all his other good qualities is that wonderful control of temper, an asset few men have. He is just the same to everybody and all the time. This is one of the reasons every man and woman working under him will go the limit whenever asked to do anything for him. He makes everyone feel that they are working with him and not under him. He is just one of us.

His friends are not only numbered among company employees but he has hosts of them everywhere. The following editorial taken from the *Chico Record* of Sunday, October 31, shows with what esteem he is held in this part of the State:

#### A WORD OF APPRECIATION

The public service concern which exercises sound judgment in placing in its positions of closest contact with the people men of sound judgment, tact, courtesy and accommodation, men who, while entirely loyal to the company, yet understand the side of the consumer, has half of its troubles conquered.

A few of the people of Chico, for instance, know that a certain estimable and doubtless capable gentleman named John A. Britton is head of the Pacific Gas and Electric Company, but they do not meet him personally and have no direct dealing with him. The great majority of the consumers of gas and electricity hereabout do not even know that he exists.

But all of the consumers know the local manager. Many of them know him personally, many of them call him by his first name. He is the recipient of their lighting, heating and power troubles, and often they call him up at night and get him out in his pajamas to bring over a new fuse for the hall light. If they like the local manager, if they have respect for his judgment, if they are received with tact and consideration, if he and his subordinates are courteous, obliging and

fair, it is the company that profits and the rough spots are ironed out for the gentlemen higher up.

These philosophic and perhaps superfluous remarks are inspired by the fact that H. B. Heryford, for a dozen years manager of the Pacific Gas and Electric Company at Chico, has been promoted and transferred. As a manager and representative of his company he was more than is implied above. In addition, he was a part of the community in a progressive and civic and social sense. He rendered full service and loyalty to his company, but he recognized the needs and wants of the city he lived in. Every consumer, great or small, was accorded equal courtesy and consideration. The people of Chico congratulate him upon his promotion and wish him well in his new field.

A farewell dinner was given by the Chico District employees to Mr. Heryford at a local restaurant Friday night, October 30, which was attended by sixty-one. After enjoying a dinner of roast turkey and the fixings a number of those present were called upon by Mr. T. J. Dunn, the toastmaster, to say a few words expressing regret at the departure of our "boss." Mr. Adams, our new manager, was present and also made a few remarks. As a token of the esteem with which Mr. Heryford is held by the employees he was presented with a diamond ring. In acknowledging the gift he responded feelingly.

In the same breath that we bid farewell to Mr. Heryford we welcome Mr. I. B. Adams, our new manager. Mr. Adams has been manager of our neighbor district, De Sabla, for many years and has distinguished himself there by his good management. As a recognition of this service to the company he has been promoted to the position of manager of Chico and De Sabla Districts combined.

Mr. Adams is well known in Chico, as his home has been in the mountains not far away and he has many friends here. This will make his work much easier. He will get the full co-operation of the employees of Chico District, with which he will undoubtedly make a big success of his work here.

THE STAFF.

## Yolo District

The attendance at the University Farm School this year is slightly in excess of that of the previous years, despite the fact that approximately 100 Australian soldiers have been taking courses in the previous year. The enrollment is 562 students. Of this number only five are women, while during the war there were a great many women taking courses with the idea of aiding in war activities.

Forty-four counties are represented in the enrollment and quite a few students are registered from other States.

The last of the Australian soldiers left about a month ago, and Major Cecil Corser, who was one of the last to leave, stated that each of the ninety-eight Australian overseas veterans who had taken a course at the University Farm School at Davis would prove a pioneer in Australia in the California methods, which set the standard for the world. He stated that his country was just beginning on an intensive development in deciduous fruit culture. Students have specialized in that line, as well as in methods of irrigation and in the method of canning and dehydrating fruit and vegetables. He also said that Californians do not realize the paradise in which they live. "It is the world's wonderland, and we intend to duplicate it as much as possible in Australia."

Work is progressing very satisfactory on the new high pressure gas main between Sacramento and Woodland. Two crews have been actively engaged in laying the pipe, one working on the section in the Yolo Basin which is being laid alongside of the Yolo causeway, and the other crew close to Woodland. The Yolo bypass stretch of the pipe is now laid, so that nothing in the way of winter flood will interfere with using the line during the coming season.

The crossing across the Sacramento River has also been laid, this being done when the river was at the extreme low stage. A channel was dug in the river about twelve feet deep in order to submerge the pipe below the point where it would not be disturbed by dredgers.

The year of 1920 has been a very busy one, due to the fact that the demand for power for agricultural purposes has increased tremendously. Despite the fact

that new business was considerably restricted, due to the power shortage, the connected load has increased 4760 horsepower from January 1 to November 1, 1920. This increased the irrigation load approximately 40 per cent. Estimates approved for construction carried on during this year totaled over \$100,000.

J. W. COONS.

## Redwood District

The new home of the Redwood District is in occupation. The building is located at Redwood City on Broadway, the principal street of the city, and one-half block from the county court house. Across the street is the Sequoia High School with its beautiful palms and peppers and green lawns, which make a wonderful setting and so refreshing for the busy employees of the office.

The front of the building is brick, with marble base with a marquee of bronze. The spacious lobby, nicely tiled with white marble, first meets your gaze. To your left is the display room with brick mantle with radiant fire heat. To the right is the manager's office, with inlaid floor and brick and tile mantle. The office is well lighted and ventilated and very attractively arranged.

The woodwork inside the building is finished in gray. The walls are green and the ceiling ivory, which makes the main part of the building very light and cheerful. In the center of the building on the main floor is a large and attractive skylight that helps to make the office very light and also carries off the heat. The building is lighted by Ivanhoe fixtures on time clocks. The office is heated with nine Rector units which will make it very comfortable during the cold winter months.

On the main floor of the building are located the cashier and collection departments, together with a modern telephone switchboard connecting all offices and substations of the district, as well as our city office, with this office. A modern and up-to-date vault has been installed on this floor for the safekeeping of the company's records.

Back of the main office to the right is the file room, and to the left the rest room for the women employees, where they can prepare their noonday lunches if they so desire.

The booking and accounting departments occupy the mezzanine floor, and are

reached by stairway from the main office. This part of the building is finished in the same colors as the main office. The light and ventilation is perfect in this department.

This office is the finest in the city, and much credit is due to W. H. Toepke, San Mateo architect, who planned the building, and Gus Wallace of Redwood, the architect who built the building.

E. W. FLORENCE.

### San Francisco District

#### GAS MANUFACTURING DEPARTMENT

Hello, people! Have you ever heard of Potrero and Metro? Well, they are the two gas manufacturing plants of San Francisco, and they are right busy places, too.

The fat, jolly Master of Metro, San Carson, has gone vacationing rather late in the season, preferring ducks to chickens.

Since the addition of Miss Edith K. Murdock to the Potrero crowd, Miss Aubert, Miss Cox and Miss Neville, the four young women, have organized an exclusive bridge club, which holds regular sessions every noon in their new club room on the top floor of the office building.

The men at the Potrero are enjoying their new locker and washroom which has just been completed. The main locker room is equipped with the latest modern steel lockers and showers, and accommodates 130 men. Two smaller rooms are being similarly equipped to take care of fifty more.

Metropolitan plant is not to be outdone by her sister plant, Potrero. A new locker and washroom is in course of construction and will be occupied by the end of the month.

The total send out for San Francisco has already reached a peak of over 20,000,000 cubic feet on November 6, a record for the first half of the month of November. We anticipate a peak of nearly 25,000,000 in December.

Mr. J. M. Dickey, the genial superintendent of gas manufacture, tried the scheme of installing "kick" boxes sug-

gested by the "pay envelope stories," which are attached to the pay checks each month, but it didn't work at either Potrero or Metro. Nobody had any kicks to register.

Do any of you uptown people recognize any of these telephone conversations:

I.

"Hello, Miss Potrero. Is Mr. Potrero in?"

II.

"Hello, Jimsey!"

III.

"Good morning. How are you this morning?"

"Strong as a wildcat."

Or if perchance the barometer of the young lady's feelings is low she'll answer instead:

"Tame as a pussy today."

L. M. A.

The employees of this district will be pleased to learn of the marriage of Miss Myrtle Weitner on November 4, 1920, to Mr. James Michael Tobin. On the occasion of her leaving the collection department tendered to her a surprise by presenting a beautiful gift. Mr. and Mrs. Tobin after a short honeymoon will take up their residence in Yolanda, where they will be pleased to meet all their friends.

#### IN MEMORIAM

PETER J. MORRIN

We regretfully report the passing away of Peter J. Morrin, one of the best liked and most beloved collectors of the San Francisco District. "Peter," as he was affectionately known to all, entered the employ of the company in July, 1901. He was beloved not only by his fellow workers but by many of our consumers for his kindly way and willingness to serve at all times.

He is survived by two daughters, his wife and third daughter having passed away during the last three years, a brother and two sisters, to whom we extend our sincere sympathy. May his soul rest in peace.



## HEAD OFFICE TIDINGS

On Thursday evening, October 28th, a dinner party was given at a local restaurant in honor of Miss Letitia A. Curtis, on her approaching marriage to Mr. Walter Dreyer of the civil engineering department. Miss Curtis was for many years employed in the engineering department, but left a few months ago to join Mr. F. G. Baum's office staff.

The table was beautifully decorated with flowers, a gift of our Pacific Service Employees' Association. During the dinner Miss Curtis was presented with a handsome Madeira luncheon set from the following young ladies:

May A. Murphy, Lois Landis, Dorothy Burns, Grace Gray, L. Schlichenmaier,

Ruth Shea, Ida Sproule, Minnie Lane, Margaret Holton, Blanche Zimmerman, Alice Fennell, Edith Patton, Effie Brandt, Margaret Gray, Mary Jackson, Ethel Embray, Mary Donnelly, Rosa Lamont, Dell Morton, L. Vander White, Mrs. A. McCarthy, Mrs. E. Thierbach, Jeanette Daub, Birdie Dale, Marie Belden, Queen Derry, Mrs. Grace Jansen and Zita O'Connor.

Born to Mr. and Mrs. C. C. Cole, on October 12, 1920, Clinton Cameron, Jr., weight six and seven-eighths pounds.

Mr. Cole is one of the drafting room staff. It was the pleasure of that department to extend to Mr. and Mrs. Cole its sincere congratulations and best wishes. A silver token was sent to Clinton, Jr., expressing this sentiment.

## *The Evolution of the Lamp*

By F. TALGOTT, Superintendent Gas Sales Bureau, San Francisco District

Before the advent of the tungsten, or, as we know it, the "Mazda lamp," the carbon lamp, 16 candlepower or 50-watt lamp, was used almost exclusively by nearly all consumers of electricity. Occasionally you would find an installation of a 32-power carbon lamp, or a 120-watt lamp, but as a rule these cases were rare, due to the objection by the people to the amount of current consumed by these lamps.

When the Mazda lamp came on the market people were skeptical as to the claim made that it would reduce the consumption on the meter and increase the efficiency of the lighting. As the 25-watt Mazda lamp delivered approximately 20 candlepower as compared to the 16 candlepower of the old carbon lamp, which consumed 50 watts per hour, the 25-watt Mazda naturally became very popular.

From sales charts kept by the lighting companies the percentage of lamps sold was greatly in favor of the 25-watt Mazda lamp, and it was not until the year 1918-

1919 that this condition was changed in favor of the 40-watt lamp, which gradually replaced the other. It was only through careful education of the public by salesmen and women engaged in the sale of incandescent lamps that the demand for a more efficient lamp was created. Even today the retail sales depend largely on the clerks waiting upon the public, as surprisingly few people know the candlepower of a lamp, and outside of knowing that they want a "Mazda," as a rule they do not know what wattage lamp to install to get the best results.

It therefore rests with the clerk to sell them efficiency in lighting, and today in many homes you will find lamps ranging from the 50-watt white "Mazda" up to the 200-watt type C.

The white "Mazda" recently placed on the market by the manufacturer is a lamp that requires demonstration, as few people know of it. This is the case in nearly all new products.



## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

Our Association held its annual meeting in San Francisco on the evening of Tuesday, November 9, and according to established custom reports upon the year's activities were received and the report of the nominating committee acted upon. The following were elected to the board of officers of the Association for the ensuing twelvemonth: President, A. U. Brant, Alameda County District; vice-president, W. M. Henderson, San Francisco District; secretary, R. W. Robinson, President's Office; treasurer, R. E. Crossman, Valuation Department.

The following were elected members of the executive committee: R. W. DuVal, Rate Department; E. G. McCann, Valuation Department; George Baldwin, Sacramento District; Walter Skinner, Load Dispatcher's Office.

An important announcement made at this meeting was that in the recently effected reorganization of our company's departmental activities an employees' welfare committee had been created whose personnel would include not only the president of the Pacific Service Employees' Association but, also, a member of the Association to be elected at large. Pending the putting into operation of the necessary machinery to secure proper expression from the Association as a body upon the member to be selected for this important office, the members present at the meeting adopted a resolution empowering the executive committee to make the temporary selection. At a subsequent meeting of the executive committee J. S. Worthington of the Alameda County District was chosen.

There was a large attendance at this annual gathering. Unfortunately, both Mr. Creed and Mr. Britton were absent on an important business trip up country, but it was gratifying to receive a telegram from these gentlemen addressed to President Fisher and heartily congratulating him and his board of officers and committees upon their more than efficient handling of the affairs of the Association during the year now closing. President Fisher read this telegram to the meeting and it drew forth many ex-

pressions of satisfaction at the active interest manifested in the Association and its affairs by the executive heads of the company.

Vice-President Leach was present at the meeting and took a keen personal interest in all that transpired. President Fisher's report upon the activities of this, the fourth year of the Pacific Service Employees' Association, was a concise review of the prominent features. He spoke of recent innovations in the direction of employees' welfare, such as, for instance, the establishment of the death benefit plan and the adoption of an employees' loan plan. He made the announcement that since the inauguration of the death benefit plan there had been three cases of death in the Association membership, but he was able to say that in each case the obligation, in the payment of \$300 to the nearest relatives of the deceased, had been promptly met. The employees' loan plan, he said, would work out satisfactorily under present arrangements.

Another item of interest was the work of the women's committee, particularly in the direction of affiliation with the Y. W. C. A. The record showed that 92 women members in San Francisco and 47 in Oakland had availed themselves of the privileges thus afforded.

Among the social features of the year President Fisher mentioned the annual dinner held in San Francisco on June 17, at which 825 were present, including officers and directors and President Edgerton of the California State Railroad Commission. The program of out-of-town gatherings had been unusually successful, and that athletics had not been neglected was shown by the active interest taken in the basketball and tennis tournaments.

The membership of the Association had increased during the year from 900 to 1900. The running expenses had been large, but a considerable sum had been realized from the payment of dues and the company's management had been most generous in its financial support. Altogether, then, the outlook for the fu-

ture was of the brightest. President Fisher closed his report with a word of thanks to his officers and committeemen for their earnest co-operation during his term of office.

The financial report was presented by Secretary R. W. Robinson. It showed that while the Association had not a large balance to its credit at the moment, yet the moneys collected from various sources had been well distributed and judiciously expended, so that the Association could look back upon a year of really worth-while endeavor.

Then came the election of officers as already announced. Mr. Brandt, the incoming president, has been a most active member of the Association since its inauguration. His address of appreciation was brief, but while speech-making may not be strictly in his line we who have followed his course during the past few years know enough to predict that he will make a most capable executive.

A program of entertainment followed by a dance closed the evening's program. Our "Pacific Service" orchestra, needless to say, was to the fore, and special numbers were presented by Ernest Hueter, in a saxophone solo, and Emile Jean Cardinal, a local vocalist of note, in tenor solos. The piece de resistance was a one-act farce, presented by members of the Pacific Service Players' Club and entitled "Patent Applied For," in which the following took part: Messrs. R. W. DuVal, D. H. Roundtree, C. Z. Yost, and Misses Myrtle Allard, Zita O'Connor and Margaret Gray. The situations were sufficiently amusing to entertain the audience delightfully. The play was presented under the personal direction of Mr. Frank L. Mathieu, so that all the characters were well sustained.

Two out-of-town gatherings fell upon the same date, namely, Saturday, October 30. That on the official program was held at Stockton under the auspices of the San Joaquin, Stanislaus, Tuolumne, Electra and Fresno districts, the manager of each being present to do the honors to the visitors from San Francisco, Oakland and other parts of the "Pacific Service" territory.

It being the last week-day in the month of October the affair took the part of a Hallowe'en party. Philomathean Hall was the meeting place and it was most tastefully decorated in appropriate style.

A huge caldron suspended by a tripod was displayed in the main lobby. The caldron was filled with huge red apples and a fire built underneath made them sizzle in most inviting fashion. The sport of Hallowe'en was in the air and fully 300 representative men and women attended.

We were favored by the presence of President Creed, Mr. John A. Britton and Mr. P. M. Downing. Mr. Creed and Mr. Britton attended the meeting with considerable personal inconvenience, leaving San Francisco at a late hour in the day and taking their evening repast in their car in order to arrive at the meeting on time. Needless to say, Mr. Creed was heartily received when he stepped upon the platform to make a brief address to the men and women of "Pacific Service." His simple directness charmed his hearers and it was with great satisfaction that the assemblage received his announcement of the creation of an employees' welfare committee to be headed by the executive officers of the company and having as members two representatives of the Employees' Association. Mr. Britton and Mr. Downing, also, addressed the gathering, each in his happy way.

Then came the program of entertainment, features of which were selections by Mr. Frank A. Milholland and Mr. and Mrs. Seward of San Francisco District. The various district managers acting as hosts on the occasion were separately introduced by Chairman Fisher, and each, in turn, said his little say.

It was estimated that, in addition to the local members and visitors from San Francisco, Oakland and bay districts, twenty-five attended from Fresno, thirty from Stanislaus, twenty from Sonora and twenty from Sacramento. Altogether it was a most enjoyable evening and closed, according to time-honored custom, with a dance.

The following day, Sunday, was exceptionally fine and Messrs. Hall and Fagg of the San Joaquin District played hosts in a boat excursion to Middle River substation. The experience of the water journey through the maze of sloughs and channels that mark the delta district is an unusual one. A great number of those present had enjoyed it upon previous occasions, but there were many new comers in the party and all made the most of the day in the open air. There was the usual good time of song, laughter and refreshment.

A most successful outing came to a close in the late afternoon when the retreat for home was sounded.

The other Hallowe'en party was held at Red Bluff. It was given under the auspices of our Association although directed by a committee of employees from the Northern district.

Knights of Pythias Hall, a commodious structure, was requisitioned for the affair, which took the form of a masquerade party and dance, not forgetting refreshments in the way of fruit punch, coffee, hot dogs, etc. A reasonable charge was made to help meet expenses and it is estimated that at least seventy-five couples attended. Some of the costumes were very good, indeed. The young women showed that they had put both time and thought, as well as some little expense, into their designs. A prize was offered for the best costume and this was won by Ed. Whaley's stenographer, Mrs. V. S. Kipp, who was attired as Polly of the Circus.

The hall was tastefully decorated in Hallowe'en style. In the center was a great pumpkin with a light burning inside and the inscription "John A. Britton." Other pumpkins were placed around the hall bearing, respectively, the names "F. A. Leach, Jr.," "H. B. Heryford," "Ed. Whaley," "G. R. Milford" and "Clifford Bartlett." All of these gentlemen were on hand and Mr. Leach made a brief address.

There was quite a delegation from the bay, including Vice-President A. U. Brandt, Secretary R. W. Robinson and W. W. Shuhaw, official representatives of the Association. Another prominent member who attended was Mr. W. S. Yard, Engineer of Gas Operations, who accompanied Mr. Leach. Vice-President Brandt acted as spokesman for President R. E. Fisher in extending the greetings of the P. S. E. A. Mr. Robinson was called upon and made a smart little talk, describing the Association's various activities and calling attention to the advantages of membership. Ed. Whaley, who since has retired from the company's service, spoke words of appreciation of the loyal co-operation accorded him by all in the district during his incumbency of district managership. He bespoke similar loyalty for his successor. Needless to say, "Jack" Heryford was on hand to acknowledge the honors bestowed upon him.

It was quite in the natural order of things and in the spirit of fun that Messrs. Heryford and Whaley should receive the two booby prizes for the worst costumes on record. The prizes took the form of jumping rabbits and the two winners got out on the floor and displayed them in the most approved style. It may be mentioned here that Chico, "Jack" Heryford's old district, sent a delegation of boosters to the gathering.

The evening resulted in bringing in a number of new members to our Association, including twenty-eight from North district and thirty-nine from Shasta. On the following day, Sunday, the return home was in order. Most of the visitors went back through Sacramento, taking in Willows and Corning on the way.

Important meetings of the Association's executive committee were held on October 26 and November 16, respectively, at which the usual Christmas gathering was projected. While it would not be exactly right to give out too many facts at the present time, it may be permissible to tell our readers that this feature is arranged for the evening of Friday, December 17; that Scottish Rite Hall in San Francisco has been secured and that the star feature will be an historical pageant, dealing with the progress of California from the beginning of time to the present day.

One matter that the executive committee has in hand is the establishment of permanent vacation grounds for the use of members. Two sites are already agreed upon, located, respectively, at de Sabla and Lake Spaulding; these being the best available for men and women of "Pacific Service" who find the transportation problem hard. For those having cars other suggested vacation spots are the Pit River territory and the Relief reservoir region in Tuolumne district.

A proposition has been presented for an outing to Spring Gap, in Tuolumne district, in the spring, winding up with a dance at Stanislaus power-house. If this can be arranged it will be a very attractive feature of next year's out-of-town program.

All the above goes to show that the incoming administration will have work in plenty to carry out the employees' welfare idea which, after all, represents the real aim and object of an association like ours.

F. S. M.

## F. S. Benson, Our 1920 Tennis Champion

By I. C. STEELE

The tenth annual handicap singles tennis tournament was held on the company's courts at the Temescal substation; Oakland, October 2 and 3. The tournament was a huge success throughout, there being an entry list of thirty-one players, of varying abilities from beginners to first-class players. The handicapping was, in most instances, exceptionally close, as evidenced by the scores.

A considerable concourse of spectators witnessed the play throughout the two days, and were treated to some excellent exhibitions of the game. There was a very marked improvement in the play of many contestants over their game of previous years.

Mr. F. S. Benson, of the Electric Distribution Department, a comparatively new man with the company, carried off the honors in real championship style.

Not one of his five opponents was able to capture a set from him, and in only two out of ten sets did he lose more than three games. Benson worked hard to win his first set at 9-7 against R. Stoops of Berkeley, and again when he played R. H. Aver of Marin, the second set of this match ending 11-9. Both these matches

were wonderful exhibitions. After defeating Stoops and Aver, Benson won from W. G. Vincent, K. Naismith, and I. C. Steele, last year's champion and a two-time winner, and who had just beaten "Bob" Monroe, another two-time winner. The match between Benson and Steele was hard fought and a good exhibition of tennis. Although Steele was out-classed he made Benson extend himself in every game, but was unable to return the wonderful place drives and accurate lobs which were the principal point winners for his opponent. Benson won the match by the score of 6-2, 6-2.

The match between Roy Cowles and H. M.

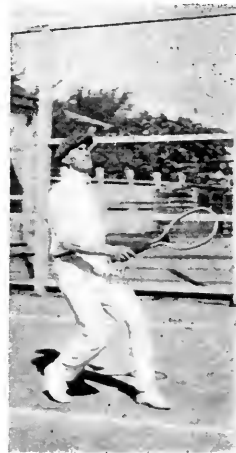
Anderson, both of Alameda District, was full of thrills and action, Cowles winning 6-3, 4-6, 6-1. Cowles later ran circles around Earl Fisher after Earl had beaten C. W. Larne in a strenuous three-set game. Earl later admitted that, regardless of the sympathetic handicap that might ever be given him, he could see no possibility of his ever winning the cup, but he very proudly brought forward his little son, James Curtis Fisher, as a coming "Pacific Service" champ. We all venture to say



F. S. Benson, the new "Pacific Service" tennis champion.



Earl Fisher.



R. H. Aver gave Benson a tussle.

that within a few years he'll hand his daddy a good trouncing. Cheer up, Earl, next year there will be another tournament. Roy Cowles was later beaten in a hard-fought contest by Steele and deserves a lot of credit for the game he played.

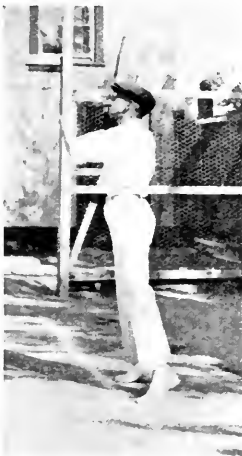
C. M. Josephs of Alameda District surprised the spectators by extending Steele to his best, the latter winning 6-4, 8-6.

Josephs was perhaps a little over what we might term a training weight. He had previously beaten G. H. Waterman of Marin, who is only a beginner but shows promise of doing bigger things in the future.

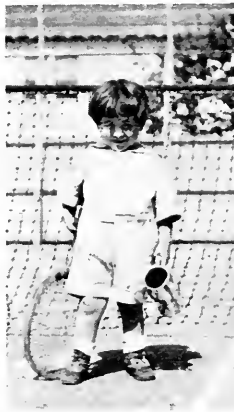
The match between R. A. Monroe and T. H. Parker was one of the best matches of the tournament, Monroe winning by a score of 6-4, 6-4. Every game was hotly contested, and many times games went to deuce time and again. Monroe later played Steele in a match full of action and good tennis, but lost 6-3, 3-6, 6-3.

"Jack" Dodge, who has won the cup on two occasions, was not able to play. This was very disappointing to the tournament committee, but it is hoped that he will play next year, thereby making a total of four champions in competition with the vast number of other coming champs.

The saddest news of all, however, to the committee and vast multitude of spectators was that out of a quartet made up of P. M. Downing vs. S. J. Lisberger and E. B. Henley vs. Ed. Florence, the winner of one match to play the winner of the other, Earl Henley alone made his presence known. Earl was then at a disadvantage playing K. Naismith on account of not getting the desired warming up which he would have had in a previous match against any one of the other three distinguished gentlemen. Earl lost, but



G. H. Waterman, a promising beginner.



A possible champion in futuro.  
Jas. C. Fisher

was apparently not entirely disheartened. He still claims he can trim Ed. Florence. How about it, Ed?

Light refreshments, such as lemonade, cookies, sandwiches, coffee, cheese and crackers and various other "good eats," were served and proved most welcome. Thanks are due to those who so generously helped in this regard, also to the tournament committee for the staging of one of the most successful and enjoyable tournaments ever held under the auspices of the Employees' Association. The committee consisted of I. C. Steele, chairman; W. G. Vincent, R. R. Cowles and R. A. Monroe. Those winning prizes were: F. S. Benson, first prize; I. C. Steele, runner up; R. A. Monroe, semi-final prize; K. Naismith, semi-final prize.

It would be a great thing if E. E. Dodge were to stage a comeback and enter next year's tournament with the two other two-time winners and the new champion. This combination would surely bring about a contest worth while and would be a sure drawing card. Heavy handicaps, of course, would prevail in the case of these men in order to give the coming champion and other players of lesser experience a fair fighting chance to keep the handsome silver loving cup in circulation. The more names that are on it, the more valuable the cup becomes.

Practically all of the winners now with the company have signified their intention of starting

in immediately to practice for next year's tournament, and if their enthusiasm does not wane there will surely be some exciting and thrilling tennis next year. All four of the champions possess excellent drives, place shots and overhead smashing ability and will undoubtedly be at top form. Good luck to them all whether champions or not, and may the best man win!



T. H. Parker.



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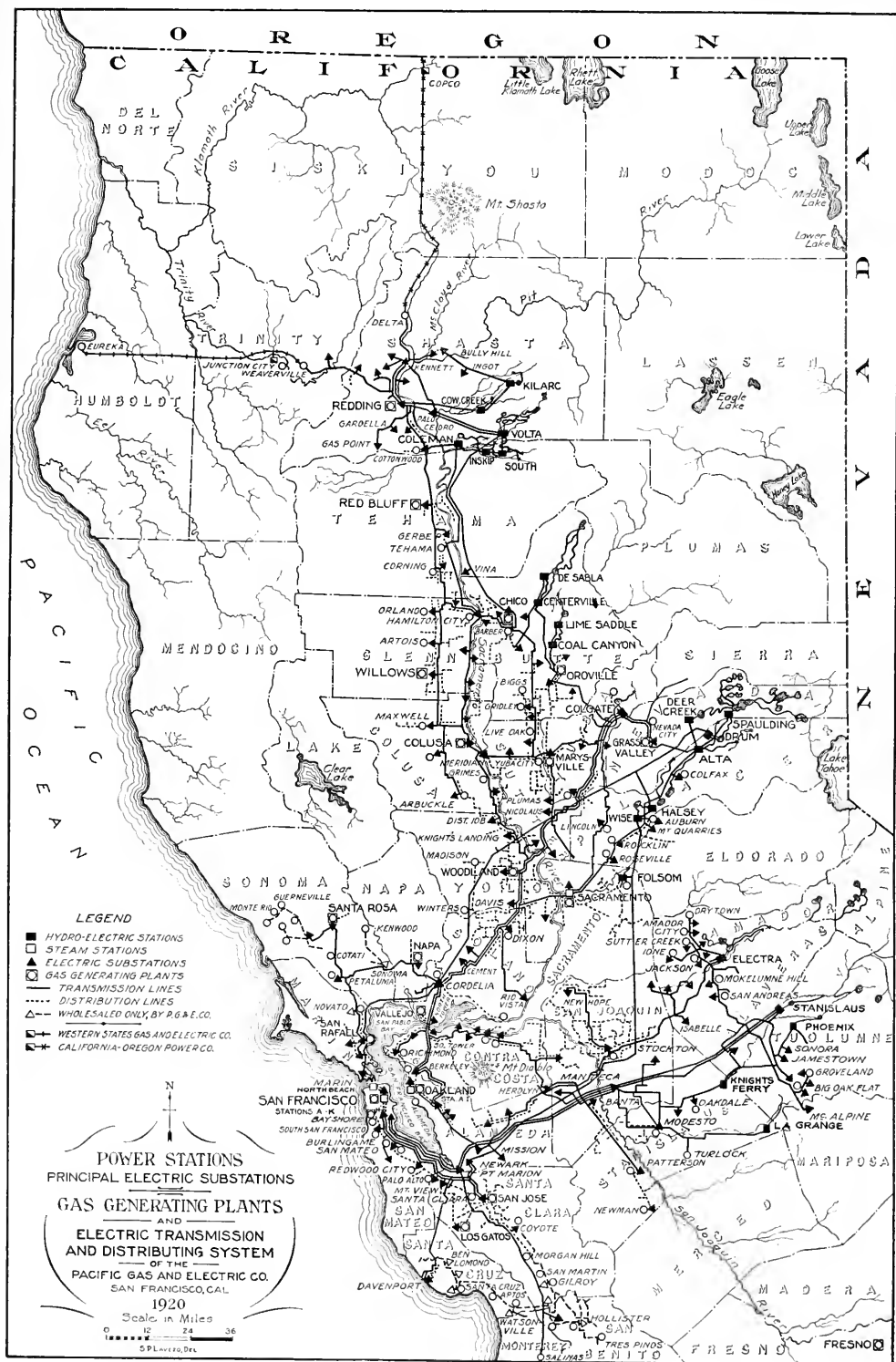
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CITIES AND TOWNS SERVED BY COMPANY:

			DIRECTLY		INDIRECTLY		TOTAL	
			No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231		
Gas .....	54	1,227,931	2	8,600	56	1,236,531		
Water (Domestic) .....	17	66,873	8	19,300	25	86,173		
Railway .....	1	76,000			1	76,000		

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>41</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	350	<sup>1</sup> San Pablo.....	500
<sup>2</sup> Albany.....	2,300	<sup>42</sup> Emeryville.....	3,000	<sup>2</sup> Mission San Jose	500	<sup>2</sup> San Quentin.....	2,500
<sup>3</sup> Alvarado.....	700	<sup>43</sup> Escalon.....	500	<sup>3</sup> Modesto.....	14,000	<sup>3</sup> San Rafael.....	6,000
<sup>4</sup> Alviso.....	550	<sup>44</sup> Esparto.....	250	<sup>4</sup> Mokelumne Hill	300	<sup>4</sup> Santa Clara.....	6,000
<sup>5</sup> Amador City.....	1,100	<sup>45</sup> Fairfax.....	250	<sup>5</sup> Monterey.....	6,500	<sup>5</sup> Santa Cruz.....	13,600
<sup>6</sup> Anderson.....	800	<sup>46</sup> Fairfield.....	1,000	<sup>6</sup> Morgan Hill.....	750	<sup>6</sup> Santa Rosa.....	11,000
<sup>7</sup> Angel Island.....	280	<sup>47</sup> Fair Oaks.....	300	<sup>7</sup> Mountain View	2,500	<sup>7</sup> Saratoga.....	300
<sup>8</sup> Antioch.....	2,000	<sup>48</sup> Fall River Mills	500	<sup>8</sup> Mt. Eden.....	210	<sup>8</sup> Sausalito.....	3,000
<sup>9</sup> Aptos.....	300	<sup>49</sup> Farmington.....	400	<sup>9</sup> Napa.....	6,500	<sup>9</sup> Sebastopol.....	1,950
<sup>10</sup> Arbuckle.....	700	<sup>50</sup> Felton.....	300	<sup>10</sup> Nevada City.....	2,900	<sup>10</sup> Shasta.....	500
<sup>11</sup> Atherton.....	250	<sup>51</sup> Folsom.....	2,000	<sup>11</sup> Newark.....	505	<sup>11</sup> Shelville.....	200
<sup>12</sup> Auburn.....	2,800	<sup>52</sup> Forestville.....	225	<sup>12</sup> Newcastle.....	950	<sup>12</sup> Sheridan.....	250
<sup>13</sup> Barber.....	500	<sup>53</sup> Fresno.....	48,867	<sup>13</sup> Newman.....	1,200	<sup>13</sup> Smartsville.....	300
<sup>14</sup> Belmont.....	375	<sup>54</sup> Gilroy.....	2,900	<sup>14</sup> Niles.....	1,000	<sup>14</sup> Soledad.....	600
<sup>15</sup> Belvedere.....	550	<sup>55</sup> Glen Ellen.....	900	<sup>15</sup> Novato.....	400	<sup>15</sup> Soquel.....	400
<sup>16</sup> Benicia.....	2,400	<sup>56</sup> Gonzales.....	650	<sup>16</sup> Oakdale.....	2,100	<sup>16</sup> Sonoma.....	1,790
<sup>17</sup> Ben Lomond.....	800	<sup>57</sup> Grass Valley.....	5,200	<sup>17</sup> Oakland.....	225,000	<sup>17</sup> Sonoma.....	3,000
<sup>18</sup> Berkeley.....	65,000	<sup>58</sup> Gridley.....	1,800	<sup>18</sup> Oakley.....	200	<sup>18</sup> South San	
<sup>19</sup> Biggs.....	500	<sup>59</sup> Grimes.....	350	<sup>19</sup> Occidental.....	600	<sup>19</sup> Francisco.....	3,750
<sup>20</sup> Bolinas.....	200	<sup>60</sup> Groveland.....	250	<sup>20</sup> Orland.....	836	<sup>20</sup> Standard.....	300
<sup>21</sup> Brentwood.....	500	<sup>61</sup> Guerneville.....	780	<sup>21</sup> Oroville.....	5,000	<sup>21</sup> Stanford Uni-	
<sup>22</sup> Broderick.....	600	<sup>62</sup> Hamilton City	200	<sup>22</sup> Pacheco.....	250	<sup>22</sup> versity.....	2,600
<sup>23</sup> Burlingame.....	4,000	<sup>63</sup> Hammonton.....	500	<sup>23</sup> Pacific Grove.....	2,900	<sup>23</sup> Stockton.....	42,000
<sup>24</sup> Byron.....	450	<sup>64</sup> Hayward.....	4,000	<sup>24</sup> Palo Alto.....	6,000	<sup>24</sup> Suisun.....	800
<sup>25</sup> Campbell.....	700	<sup>65</sup> Hillsborough.....	950	<sup>25</sup> Paradise.....	500	<sup>25</sup> Sunol.....	340
<sup>26</sup> Capitola.....	275	<sup>66</sup> Hollister.....	2,500	<sup>26</sup> Patterson.....	500	<sup>26</sup> Sunnyvale.....	1,650
<sup>27</sup> Carmel.....	600	<sup>67</sup> Ilone.....	1,000	<sup>27</sup> Penn Grove.....	300	<sup>27</sup> Sutter City.....	250
<sup>28</sup> Cement.....	1,000	<sup>68</sup> Irvington.....	800	<sup>28</sup> Penryn.....	250	<sup>28</sup> Sutter Creek.....	1,300
<sup>29</sup> Centerville.....	850	<sup>69</sup> Jackson.....	2,100	<sup>29</sup> Perkins.....	250	<sup>29</sup> Tehama City.....	221
<sup>30</sup> Ceres.....	250	<sup>70</sup> Janestown.....	600	<sup>30</sup> Petaluma.....	7,500	<sup>30</sup> Tiburon.....	350
<sup>31</sup> Chico.....	15,000	<sup>71</sup> Kennett.....	1,200	<sup>31</sup> Piedmont.....	3,500	<sup>31</sup> Tracy.....	2,000
<sup>32</sup> Colfax.....	500	<sup>72</sup> Kentfield.....	500	<sup>32</sup> Pike City.....	200	<sup>32</sup> Tres Pinos.....	300
<sup>33</sup> College City.....	325	<sup>73</sup> Kenwood.....	200	<sup>33</sup> Pinole.....	1,800	<sup>33</sup> Tuolumne.....	1,000
<sup>34</sup> Colma.....	1,800	<sup>74</sup> Keswick.....	1,800	<sup>34</sup> Pittsburg.....	6,000	<sup>34</sup> Turlock.....	4,500
<sup>35</sup> Columbia.....	250	<sup>75</sup> King City.....	1,500	<sup>35</sup> Pleasanton.....	1,500	<sup>35</sup> Yacaville.....	1,250
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<sup>38</sup> Coram.....	666	<sup>78</sup> ing.....	400	<sup>38</sup> Red Bluff.....	3,530	<sup>38</sup> Vineburg.....	200
<sup>39</sup> Cordelia.....	300	<sup>79</sup> La Grange.....	260	<sup>39</sup> Redding.....	3,572	<sup>39</sup> Walnut Creek.....	500
<sup>40</sup> Corning.....	972	<sup>80</sup> Larkspur.....	2,000	<sup>40</sup> Redwood City.....	4,200	<sup>40</sup> Warm Springs.....	200
<sup>41</sup> Corte Madera.....	350	<sup>81</sup> Lawton.....	200	<sup>41</sup> Richmond.....	16,500	<sup>41</sup> Waterford.....	300
<sup>42</sup> Cotati.....	200	<sup>82</sup> Lincoln.....	1,500	<sup>42</sup> Rio Vista.....	1,000	<sup>42</sup> Watsonville.....	6,000
<sup>43</sup> Cottonwood.....	400	<sup>83</sup> Live Oak.....	300	<sup>43</sup> Ripon.....	300	<sup>43</sup> Wheatland.....	500
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<sup>45</sup> Crockett.....	3,000	<sup>85</sup> Lomita Park.....	450	<sup>45</sup> Rocklin.....	900	<sup>45</sup> Willows.....	1,139
<sup>46</sup> Crow's Landing	300	<sup>86</sup> Loomis.....	450	<sup>46</sup> Rodeo.....	300	<sup>46</sup> Winters.....	1,200
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<sup>48</sup> Danville.....	400	<sup>88</sup> Los Gatos.....	3,000	<sup>48</sup> Ross.....	900	<sup>48</sup> Woodside.....	225
<sup>49</sup> Davenport.....	300	<sup>89</sup> Los Molinos.....	200	<sup>49</sup> Sacramento.....	76,000	<sup>49</sup> Yolo.....	350
<sup>50</sup> Davis.....	1,700	<sup>90</sup> Madison.....	250	<sup>50</sup> Salinas.....	5,500	<sup>50</sup> Yuba City.....	1,750
<sup>51</sup> Decoto.....	300	<sup>91</sup> Manteca.....	2,500	<sup>51</sup> San Andreas.....	750		
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<sup>53</sup> Denair.....	200	<sup>93</sup> Martinez.....	3,500	<sup>53</sup> San Bruno.....	1,500		
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<sup>56</sup> Duncan's Mills	200	<sup>96</sup> Mayfield.....	1,100	<sup>56</sup> San Juan.....	550		
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PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



SANTA CLAUS HEARS THE MESSAGE OF THE FALLING WATER

Vol.  
12

DECEMBER 1920

No.  
7

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# Pacific Service Magazine

Volume XII



Number 7

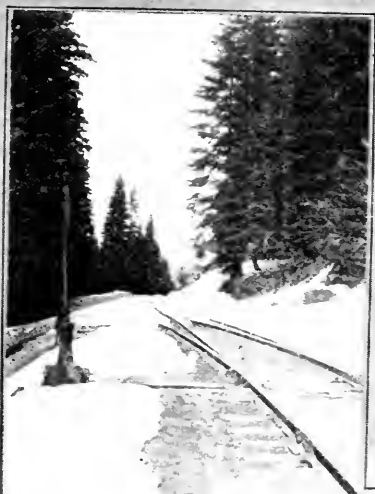
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Winter Scenes at and around Lake Spaulding, at the head of the South Yuba-Bear River Development.

# PACIFIC SERVICE MAGAZINE

Volume XII

DECEMBER, 1920

Number 7

## "The Friends Thou Hast, And Their Adoption Tried—"



CHRISTMAS! Magic word of joy, filling the heart and soul of man with ecstasy; changing the mind from sordid thoughts to noble ones; bringing out and developing higher ideals of life, recreating, ennobling, bettering all things human.

¶ It has become not only the Christmas day but the joy-day of all humanity.

¶ It emphasizes and exalts the saying "It is more blessed to give than to receive," while to the world it becomes us to return much of the goodness we have received from relation, friend and neighbor.

¶ It causes us to pause in the mad rush and whirl of life and take stock of ourselves, to ask the question: "What have we done with the stewardship intrusted to us?" And if we can hear the answer "Well done, thou good and faithful servant," then has our life not been spent in vain.

¶ In such a spirit must we approach the Yule-tide season and the year to follow.

¶ Once more is granted to me the privilege and pleasure of conveying to my associates the greetings of the Christmas Season, and a sincere and heartfelt appreciation of the friendships which have grown richer every year and have sustained and encouraged me beyond measure.

¶ For nearly twenty centuries the magic of Christmas has moved humanity to better thoughts, better deeds, and higher ideals, and as we approach the close of the year the influence



of the season causes the human element to relax from its struggles, causes smiles to dissipate frowns, and good wishes and thoughts to drive out evil ones.

¶ So, after all, we become better men and women because of the recurrence of Christmas day, and the hearty

Merry Christmas and Happy New Year! from friend and neighbor lightens our toil and gives us renewed energy for the tasks to come.

¶ Therefore, in a spirit of good fellowship and service, with thankfulness for the blessings of the past and a glorious anticipation of the future, in the name and on behalf of "Pacific Service" it is my pleasure to wish for my associates the very merriest of Merry Christmases and the happiest of Happy New Years, strong in the thought that the coming year will fully support the wish and surpass previous years in successful accomplishment. That thought is builded on the tried spirit of service and loyalty permeating and dominating our organization.

¶ So now let us go forward to the task that is ours, setting ourselves to that accomplishment strong in our faith, reliant upon our past record, not faltering but looking ever forward to that goal wherein rests reward for effort, and as the year to come draws to a close may we find our hopes realized, our ambitions satisfied, and may we truly be able to say it was indeed a

HAPPY NEW YEAR

*John A. Britton.*  
*Vice President & General Manager.*

# *A Hark-Back to Early Days In Nevada County—Old Memories Revived By a Visit to Columbia Hill*

By JOHN P. COGHLAN

*Mr. Coghlan, attorney and head of our company's Department of Claims, first saw the light of day at Columbia Hill, in Nevada County. He left there in 1891, a small boy, and only last Summer he revisited the scenes of his childhood days for the first time. Needless to say, he found many changes. In simple, direct fashion he tells his story, a story that carries a message to all young men who strike out for themselves.—EDITOR PACIFIC SERVICE MAGAZINE.*

Twenty-nine years ago I left Columbia Hill. I went away one morning in May when the flowers were all in bloom and the air was fresh with spring. The other day I went back. Again it was May and again the flowers were in bloom and again spring was in the air; but it was not the place of my boyhood.

The house in which I was born near the lower reservoir at Columbia Hill had disappeared entirely. There was not a board left, not even a trace of the old fence; there was not a rosebush nor a vine to brighten the spot. Manzanita and small pines had grown up everywhere and all I could find of the old home was a hole in the earth, once our cellar.

But time could not take old memories away. My mind ran back to the days when there were pans of cool fresh milk in that hole that was once a cellar, and cakes and pies and pickled beets and peaches and plums and preserved fruits. It seemed, too, that I could see tubs of butter, barrels of salt pork and corned beef, hams and bacon and sacks of potatoes and bags of flour and sugar, all put away for the winter. I wonder if such things are done any more?

I looked for the old barn where we kept our cows, but that, too, was gone; gone, also, the woodshed and the little cabin of Johnny Donnelly, "our next-door" neighbor.

We, my family and I, left Donnelly behind when we moved away, and though he was then an old man I almost expected to find him sitting in his cabin door when I went back. But he was there only in memory, and in memory I saw him, a wiry, grayish little man who had been a tea merchant in Boston and who had left home and business in the fifties to search for gold in California. As I stood where once he lived I seemed to hear his stories of early mining on Shady Creek and to

see him again as an old man going out in the rain and snow of winter to pan the old tailings, returning to his cabin in good weather, to dream through the sunshine and warmth of spring and summer.

He had to have water for panning, he said, and water came only in winter. However that may be, he dug and panned each winter, gathering enough gold dust to keep him through the year with a dollar now and then to spare for any boy he liked. I trust he rests in a place where gold is all about and where the things at hand are as beautiful as the things hoped for.

Gone, too, was the "Company" blacksmith shop which stood a hundred yards or so away from our house and from Donnelly's little cabin. Small pines grow over its site, and all I could find to mark what was once a scene of great activity was a rusted machine for punching pipe



Manzanita and small pines had grown up everywhere and all I could find of the old home was a hole in the earth, once our cellar.



The old orchard. I knew it as the place where the first cherries ripened in the Spring and where through all the Summer there were apples and peaches.

and a worn shears for cutting sheet iron. There was no sign of the building, no sign of the water wheel that stood beside it, no sign of the road that led to the door.

In other days this shop was known up and down the "ridge". It had machinery for making pipe, a complete blacksmith shop and a retort house. Gold was brought there for melting from as far north as Moore's Flat. In this shop Mr. Spafford worked on inventions that might in other lands have made him famous. I remember his making a talking machine out of wood, operated by a hand crank, that would recite the Lord's Prayer. I recall his making little improvements for the telephone that made the company line one of the best of its kind. It may not be generally known, but one of the first places in California to know the telephone was the ridge from San Juan to Moore's Flat. There the telephone was installed in its infancy, so that the hydraulic miners might send word when agents of the anti-debris association came out to the valley. Spies we called them, and I can remember how odious the word sounded. And well it might, for it spelled the end of hydraulic mining and for many the end of the free, open life of the mountains.

As I stood on the site of the old shop, striking recollections came back to me. There was the day when I opened the door of the shop, thinking no one was inside, and Mr. Spafford's dog jumped out and bit me in the leg. There was the day

when some other boys and I climbed in a window and took out a stick of giant powder and burned it in a fire to see if it would burn. Thanks to a Providence that watches over small boys, it burned and did not explode. Then there was the day I crawled into a pipe elbow and was caught. No matter how I twisted and turned and strained I could not get out. In sheer exhaustion I relaxed, and relaxing slipped out as easily as I had slipped in.

Next to the shop was an old orchard, the Nixon place. As a boy I knew it as the place where the first cherries ripened in the spring and where through all the summer there were apples and peaches. The cherry tree is still there, but withered and dwarfed and crowded with small pine; likewise the apple and peach trees, still bearing but neglected and forgotten.

Then there was the reservoir back of the old shop. As a boy it seemed to me a large lake. I remember I looked with awe upon the man that could swim across it. In its corners I learned to swim and on its mud banks spent many a summer day sliding down a smooth surface or basking in the sun. There were days when I went in twice and didn't come out until I was tired and exhausted. Now the reservoir is filled up with mud and its bank is grown over with trees. I found it difficult to walk along the top, though in my day it was a favorite path to school, shady and cool in summer and free of snow in winter.



There was the reservoir back of the old shop. As a boy it seemed to me a large lake. Now it is filled up with mud and its bank is grown over with trees.

However, I did walk along the bank and made my way again to the schoolhouse. There, too, things were different; some of the old trees were gone from the school yard and the schoolhouse itself was worn and battered. The old ladder to the belfry was in a new place and there was a tennis-ground in the yard. Inside, some of the old handmade desks were still there and the old coal-oil lamps were still about the walls. But the old stove with its cracks and rusty spots was gone and in its place was one larger and better kept. The old desks were crowded to one side and in a little corner were a few more modern at which I was told the full school sits, nine little seats spread around the teacher's desk which itself stands on the floor. In my day there was an average attendance of 70, and the teacher sat on an elevated platform at a big desk, master of all he surveyed. And master he had to be, for there were times when he had to thrash the biggest as well as discipline the smallest lad. It seemed to me a far fall from that desk and platform and a school of 70 to the little row of ten seats in the corner, one for the teacher and nine for her school. It seemed out of place, too, though I know not why, that the teacher should be a woman. In my day the teacher was always a man, a man who could lead or teach or fight. It was said that only a man could keep the school, but I doubt if that were true, for there was probably as much youthful chivalry then as now.



The school house, too, was worn and battered; and some of the old trees were gone from the yard.

I can see the teachers of my day McCutcheon, the first I ever had, who taught me to read and spell; Gassaway, who seemed very strict and cross; Gray, who was kind and helpful; G. A. Brock, who had a way of inspiring boys to do things; Hughes who could impart information on any subject. All did their bit, as the soldiers say, and to those who have gone I stood in remembrance at the old schoolhouse, and to those who live, I now give the thanks they should have had in the days when they gave the best that was in them to the boys and girls of the school.

Outside the school I wandered down to the old company office and to the company house. The office is closed and neglected. Grass grows in the road before it and there is nothing now to tell of the days when superintendents and managers passed in and out or of the pay-days when hundreds of men gathered at the door to receive their wages in shining gold or in crisp checks, good anywhere in the world. It seemed to me that I could see through the shabby walls and into the office where once was all activity, and where bags of gold-filled sand and bars of pure gold often stood on the floor guarded by big strong men with shotguns in their hands. But it only seemed so; in fact, there was before my eyes only a weather-beaten and very desolate old building.

The company house nearby, where once lived Robert McMurray, to my youthful eyes a great mining superintendent, has also gone to waste and decay. Trees and weeds overrun the yard, and what was once the finest house in Columbia Hill, a mansion it seemed to me, is just a ruin. Below it, "Jerry" Wood's boarding house barely holds together. Brush and trees crowd around as if to hide it from view, and mice and squirrels make it their home. Once so many men lived there that they slept and ate in shifts and came and went over the trails in processions. And fine men they were, all young and strong and filled with the power and adventure of youth.

Uptown I found the old store about as I left it. But the breezy figure of A. L. Woodruff who ran it in my day was gone from the door. There were no wagons in front, no freight teams pulling in or out, none of the old characters about the stove. In fact, though it was midday, the place was closed. Through the window I could see tins and packages on the shelves, all



The old store. There were no wagons in front, no freight teams pulling in or out, none of the old characters about the stove. In fact, though it was midday the place was closed.

very small and very modern, and very unlike the big bins and barrels and stacks of groceries and provisions of the old days. I could not see through into the back room, but I wondered if boys still got suits of clothes and hats there. Probably not; but if they do, may the getting of them be as exciting as it was to me. My first straw hat came from that back room and though it was a man's hat in shape and size I have never worn another with so much pride.

Higher up on the road above the store I found the old hall and the postoffice all in ruins. Yet they seemed to hold some of their old importance. They seemed to say to me "It was here that you saw your first show and, though the show consisted of only two trapeze performers in tights and spangles, it was more wonderful than any of the great shows or circuses you have seen since." It was here at the old postoffice on Tuesdays, Thursdays and Saturdays that I saw the mail stage come and go and heard the gossip of the road and stories of the big men of the ridge. It was here that I got the mail and the weekly paper that first told me of the great world outside. Sometimes there was an extra magazine to add to my entertainment or instruction, and frequently sample copies of papers and magazines of which the postmaster, Dave Holland, always saved me one. Since then whenever I see a sample copy I think of the surprise and delight with

which those old sample copies came into my hands.

Now, the postoffice is in the store and though the mail is small I suppose there are those who still look for its coming with some of the excitement and anticipation that used to possess me.

As I stood at the postoffice I thought of the old families that used to gather there, and as I asked for them I was told how one by one they had gone away, some to larger towns and cities and better opportunities, others to far off countries still in pursuit of gold, others to that land from which there is no return. Only a few now remain, largely farmers, cattle raisers and fruit growers, in a land where once there was no trade or calling except the search for gold.

I came into Columbia Hill by way of San Juan. Old stores I knew there, were shut and locked; some of them of brick had their iron doors fastened as if to shut out time and decay. I looked for the old Furth name but it was gone. A stranger told me the place had burned down and that Furth, banker and merchant, had passed to the Great Beyond.

The name Chisholm, a grocer once known to all the ridge, was still on the wall of an old store, but another name stood over it and another man stood behind the counter.

I asked for Dr. Farley and a stranger answered that he had never heard of him. Well, I'll never forget him. He was the first doctor I ever saw and his rows of



The old postoffice all in ruins; where I saw the mail stage come and go and heard the gossip of the road and the stories of the big men of the ridge.

bottles of pills and drugs are as fresh in memory as when I saw them as a boy of six or eight and watched him measure out a potion that was said to be a sure cure for colds and croup.

As I stood in San Juan's main street I thought of the days when men and women crowded its stores, when the town boasted of a bank and a newspaper, when great freight teams passed that way and fast stages dashed in and out. No trace of all this now. One lone team stood in the street and a boy sunned himself on the porch of what was once a large and busy hotel. A few rods away some men worked on the road. Beyond that all was deserted and still. It was San Juan in name only.

Out of San Juan at the forks of the road to the old town of Cherokee is the Oak Tree Ranch. At least on the map it is called so. To the old-timers it is the "Hughes place." In my boyhood I knew it as a place where fine fruit and vegetables were grown, and as the home of three kindly men, Jim, Rob and Will Hughes. I found it much as I left it, a fine orchard and garden and the three brothers as good natured as ever, though somewhat tanned and lined with time.

It was Jim who drove my family and me away from Columbia Hill those years back. He came for us one morning long before dawn and, helping us and our little belongings into his spring wagon, drove us off to Nevada City and to the early morning train for Colfax and San Francisco. It was a long and lonesome

man, but it took me twenty-nine years to get back. Such is the way of the world; and so the world makes us victims of routine and ties us down to the day's work.

Rob Hughes was one of my old school teachers. As I talked with him the other day I thought of the hours he spent showing me the way of books. He was a good teacher and one of the things he taught me was how to study, and when one has learned how to study he has won half the battle of education. Rob Hughes holds a record of 29 years of teaching in Cherokee and Columbia Hill. It's a fine life to look back upon, twenty-nine years of preparing others for life's work. Such service surely entitles him to the restful life he now pursues, part farmer and part scholar.

Cherokee, once Patterson, I found now called Tyler. Why Tyler? There is nothing in the name that fits the place or its associations. Cherokee and Patterson, no doubt, had to go in their turn, but it seems to me a more fitting name than Tyler should have replaced them. Somewhere might have been found a name suggestive of the past, of the traditions of a mining camp once known through all the mountains. But perhaps a name doesn't mean much to Cherokee now. It's hardly a place. Its stores are gone; its hall is no more, and the only public place left is the postoffice in which "Jim" Morgan and Judge Brophy, sons of pioneers and now themselves pioneers, greet the passerby and regale him with stories of the past.

Hardly a trace remains of the homes of the old pioneers, the Morgans, the Lanes, the Donovans, the Morrisons and the rest. Their houses and their little gardens are all gone; even the



ride; we were leaving friends and home behind and going into a new world. I remember how we watched the hills and valleys drop away and how we speculated when we should see the old places again. I was for coming back in a year or so, surely as soon as I became a



Even the mines in which they worked in the early fifties, with rocker and pan first, then with the canvas pipes that preceded the giant monitors, are hidden by the wash of time.

mines in which they worked in the early fifties, with rocker and pan and then with the canvas pipes that preceded the giant monitors, are hidden by the wash of time.

And so the changes pressed on me, old ditches everywhere filling up, old mines growing over with brush, houses and stores abandoned, familiar faces gone. I was surprised how ditches that seemed wide and deep to me as a boy had almost disappeared. I was surprised how teams and wagons, the big freight wagons with eight or twelve horses and their jerk lines, had gone from the roads. I was surprised how short distances seemed as I rode over the old roads in an automobile as against the days when I walked or rode over them on horseback or on freight wagons. I was surprised to note what time and nature can do to change the lives and works of men.

But I was not surprised or disappointed in the people who remain. They proved to be the same self-reliant men and

women their fathers and mothers were before them. One boy I met, Jay Coughlan, almost the same family name as my own, born after I left Columbia Hill, had been at Chateau Thierry. One day he will know that Chateau Thierry was a turning point in history, and that to have been there is one of the greatest honors that can come to men. Another boy from Columbia Hill, Clifford Murray, sleeps on the fields of France, first wounded and then killed in battle, dying with his face to the enemy as befits a true soldier.

As I left, once again to take up the routine of life, I thought of these boys as truly representing the pioneers who had gone before them, worthy descendants of the hardy, adventurous men who first blazed the trails and turned the rivers and mined the mountains, men who if the war had come in their day would have been the first to answer their country's call and the first to offer their lives for liberty and equality.

## *The Use of the Telephone in Connection With Our Business*

By C. F. ANNETT, Jr., Department of Electrical Construction and Operation

Fellow Employees: Do you know that the telephone is the *door* through which most of the company's patrons enter, and is one of most importance, as far as the number of consumers handled is concerned?

Too much thought cannot be given to the importance of properly handling incoming calls, in other words, the proper use of the telephone, not only from the business standpoint but also from the standpoint of mechanical necessity.

We as better service employees must realize how essential it is to keep this *door* well oiled and well attended.

In telephone usage, the tone and manner of speech, and the choice of words has everything to do with the feeling created.

Our consumers form their impressions of the company by the spoken word entirely.

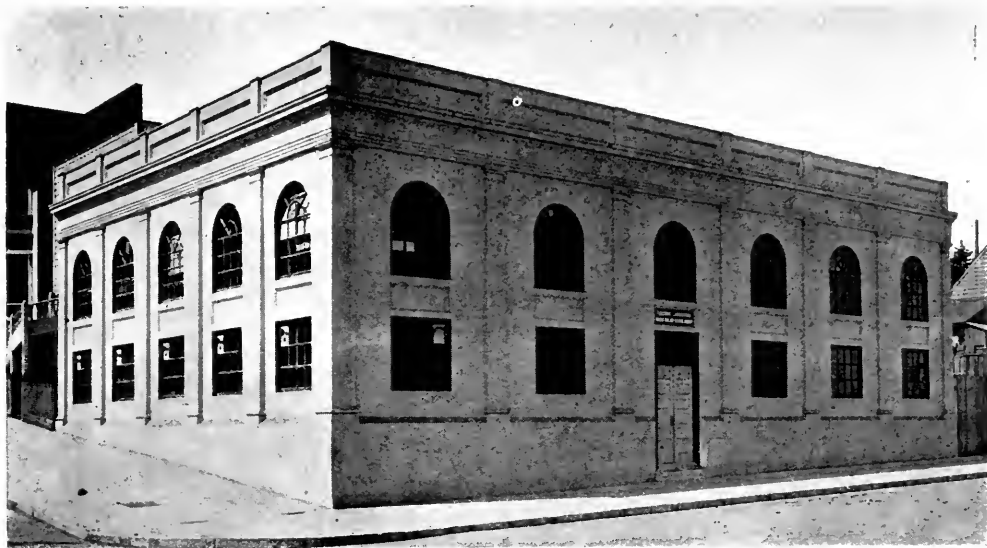
What an employee says and the way he says it over the telephone is where

the element of courtesy steps in and oils the machinery.

Half the art of good telephoning lies in deliberate talking, and by this is meant clearness and emphasis.

Very often we wonder *why* our conversation over the telephone was not conducted successfully, and can be traced to one or more causes, namely:

One trying to telephone and, at the same time, trying to add a column of figures, or talk to a third person, causes confusion. The transmitter of the telephone is very sensitive and all unnecessary tones are conveyed to it, causing a disturbance to the party at the other end. One other feature to be considered and to be avoided when using the telephone is the act of shouting or having to repeat. Concentration is the watchword of efficiency in the use of the telephone in connection with our business as an electrical utility.



Exterior of "Pacific Service" Electric Laboratory Building, situated at Mariposa and Vermont Streets, San Francisco.

## *"Pacific Service" Maintains Up-To-Date Facilities for Electrical and Mechanical Standardizations and Tests*

By O. A. KNOPP, Superintendent of the Bureau of Tests

Since the war the research and testing laboratory has become a more and more appreciated and valuable establishment in the industrial life of our nation. The war has taught us that no great industrial undertaking can progress speedily and economically unless it avails itself of the service of a well equipped and scientifically conducted laboratory.

This trend of thought probably had great weight with our company in selecting, in the fall of 1919, new and suitable working quarters for the electric laboratory formerly located at 25 Hyde Street, in San Francisco, and led finally during the recent organization in our company to the creation of the Bureau of Tests as a branch of the new department of engineering. The new quarters are in the building of the old station "E", situated at the southwest corner of Mariposa and Vermont Sts., with entrance at 2101 Mariposa St. The space in this building is approximately 4400 square feet, compared with about 1800 square feet occupied by the former laboratory, 25 Hyde St., with over 500 square feet of window and sky-

light. The building is constructed of reinforced concrete and erected on solid rock, suited for laboratory work.

The functions of the Bureau of Tests are of a wider scope than those of the former laboratory in so far as in addition to former activities of a strictly electrical nature, new work of inspection and tests of mechanical nature has been added to take care of the requirements of the civil engineers, steam engineers, etc., but the basic functions are the same, to standardize and keep in calibration the numerous portable instruments employed in testing over 200,000 meters used in measuring the power from power-houses, from and to stations, or to consumers, to keep in working order the multitude of delicate electric instruments and apparatus used in conjunction therewith, to develop special testing instruments, relays and devices to suit requirements arising constantly in a large and progressive power system like ours.

The equipment of the laboratory is principally the same as was described in PACIFIC SERVICE MAGAZINE in its issue of





Main test floor and standardizing room, downstairs, showing potentiometer cabinet to the right, heavy D. C. test bench adjacent. Main switch and control board in rear. Rubber glove testing outfit in center.

March, 1916. It consists of primary electric standards, including potentiometer with galvanometer, standard cells and standard resistances, precision meters, standard voltmeters, milli-voltmeters, wattmeters and numerous special types of fine measuring instruments; several motor generators and heavy current batteries capable of delivering 4000 amperes; batteries for operating motor generators to generate steady alternating current and others to generate steady high potential direct current; special transformers for heavy current work, for high potential in testing insulating material and linemen's rubber gloves, phase shifters and numerous other apparatus for translation and precise regulation.

Several new test benches, controlling devices and switching facilities have been added to the old equipment to economize on labor and to improve the accuracy of the test results.

A photometer has also been installed. This photometer was formerly located at Fifth and Tehama Streets, where it could not be used to advantage.

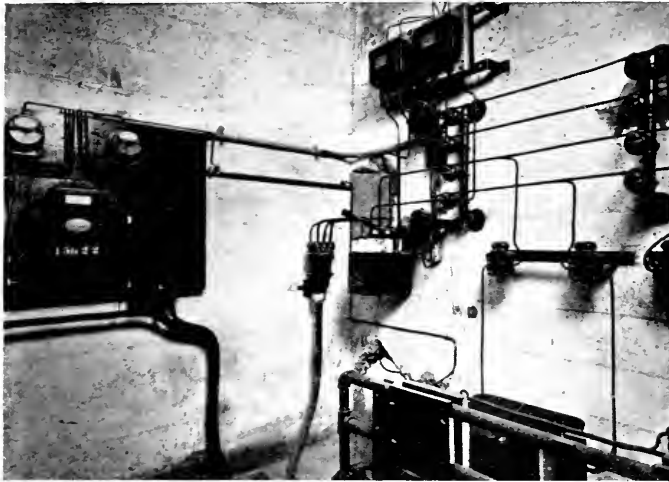
It is the intention, as ample space is now available in the laboratory, to centralize all equipment of a laboratory nature and thus secure the full advantage of all of the equipment of this nature available in the company, since in all classes of testing work there are fundamental requirements for the measurement of electrical, magnetical, mechanical and thermal quantities, and for means for regulation and control, all of which are admirably supplied through our present laboratory equipment. That such is the case was demonstrated when recently scientific tests were conducted on material of non-electrical nature. The object was to determine the relative efficiency of different makes of steam-pipe coverings, that is, to decide which would save the greatest amount of fuel if used in our steam plant. The test which proved to be very accurate was conducted entirely with electrical means, using our present laboratory equipment.

In order to reduce the cost of operation and maintenance of our system to a minimum, the equipment of our company has to be kept up to date, by the introduction

of many new apparatuses and devices constantly appearing on the market. To select the apparatus most suitable for our operating condition, such as relays, time

vance without moving parts. This device has made it possible to record on one demand meter the maximum demand of the combined service given a customer

over two different circuits; as is the case in San Francisco where a great many customers have both A. C. and D. C. service. In other cases where two A. C. services are given at different voltages, it saves the company the expense of additional transformers and lines, or an additional high voltage meter installation. Another improvement is the development of a so-called calibrating transformer or magnetic current balance for the calibration of ammeters, wattmeters, watt-hour meters and current transformers.



Corner of transformer vault.

switches and other auxiliary apparatus, is the most important work the laboratory is called upon to do outside of the repair, calibrating and standardization of instruments.

A number of interesting developments have been made in the laboratory during its existence, a few of which were pointed out in the magazine number referred to, of March, 1916. Several made since then might be worth mentioning as they have been giving valuable service to the company for some time. One of these developments is an auxiliary apparatus used in connection with maximum demand measurements, a so-called "Duplex Device," an inexpensive and reliable contri-

ers. By means of this device a great saving in time has been made in the routine work of the laboratory. An article describing this new device recently appeared in the *Electrical World*, in the issue of May 1st, this year.

In order to facilitate the measurement



View showing instrument cabinet in standardizing room. Shipping room adjacent, transformer and insulator test room in the rear.

of current over a wide range by troublemen and engineers, several multiple range ammeters were developed and built so that one single lightweight instrument will do the work of seven, cutting down the calibrating and maintenance cost, also the transportation charges and the time in testing. These instruments have become very popular with the few who know that such an instrument is available.

The cost of developing devices of this nature has been negligible. In fact, in the above mentioned cases, the first device or devices built have cost less, including developing charges, than a similar apparatus would have cost if obtainable in the open market. In one specific case the development cost amounted to \$90, whereas a similar device built on the same principles by an electrical manufacturer for an eastern power company was furnished at a price of \$250.

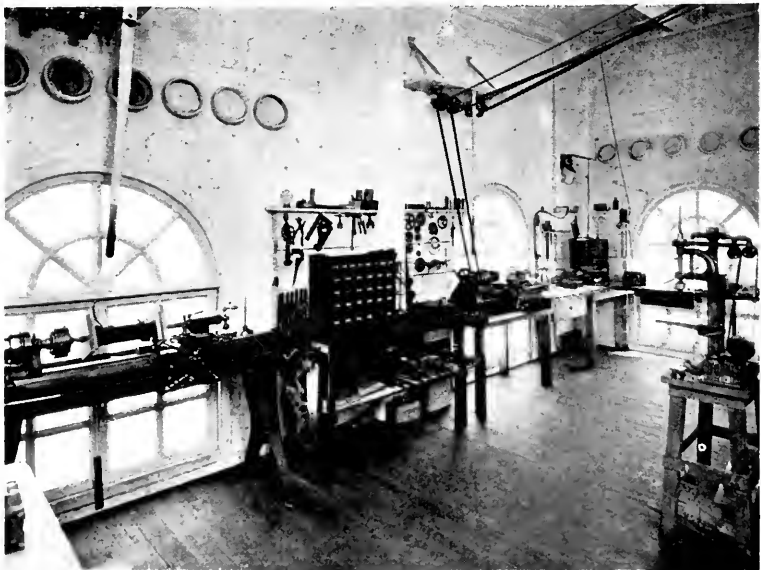
Many new ideas and problems have constantly been brought to the laboratory and there are given careful study. These

studies, experiments and developments have been helpful to many departments of our company, and more good and more valuable work will emanate in the future from the Bureau of Tests to the benefit of our company in proportion to the recognition and encouragement given it by the men on our system.

It is hoped that this article will stimulate an interest in the Bureau of Tests by reminding the men of "Pacific Service" of the fact that such valuable facilities exist, ready to give them help.



Corner of museum and meter tester's instruction room.



Corner of mechanical workshop upstairs.

## Reversing Season And Hour On The Hen

By MAY TEN EYCK, Commercial Department, San Leandro.

The little white hen and her sister, too,  
And all in the chicken coop were in a stew.  
There was great commotion, everything alfright,  
When the boss at midnight switched on the light.

"Great Caesar's ghost," said the little white hen,  
"I'm sore and disgusted with this chicken pen,  
Where you can't sleep days and can't sleep nights,  
And all of our naps must be taken in bites."

"For weeks and weeks not a day did I miss,  
I delivered an egg and now look at this;  
I'm called from my slumbers, it's no use to beg,  
It's get up at midnight and lay me an egg."

So the hens all joined and the roosters, too,  
And the noise they made was some hullabaloo,  
Then the roosters said to each squawking hen,  
"We'll go on a strike, you say just when."

The Leghorn, the Bramah, the Rhode Island Red,  
Agreed in convention, and here's what they said:  
"We're honest young pullets, no duty we shirk,  
But one egg a day shall be a day's work."

Then the boss gave in and shut off the light,  
And now the dear pullets can sleep the whole  
night.

The grocery man kicks, the dear people holler,  
But that is the reason eggs sell for "a dollar."

GEORGE H. PARK.

Hayward, Cal.

Electrically lighting the chicken houses has been a blessing to the poultryman, for during the months of October, November, December and January he is face to face with the problem of short days, which means decreased egg production when prices are most attractive. On account of the fewer hours of daylight the hens are forced to seek the roost early and rise late, thus they are unable to obtain as much exercise as during summer days. With lessened exercise comes less consumption of food, hence a lessened production. Nature's old rule of less activity, less consumption, less consumption, less production, holds true.

It is difficult to keep production in the fall of the year above 8 to 20 per cent, which means 8 to 20 laying hens in a flock of 100. In October, the percentage is 12 to 20, while in November it falls between 8 and 10 and in December 12 to 15. The average spring and

summer production is from 50 to 70 per cent. The highest quotation to the producer for eggs per dozen in the year 1919 was 85  $\frac{3}{10}$  cents in December, and the lowest quotation 40  $\frac{3}{10}$  cents in the months of March and April.

It can easily be seen what an advantage it would be to the producer if he could have a 50 to 70 per cent production when eggs are bringing the highest prices. This has been brought about by electrically lengthening the hours of light.

This is accomplished by equipping the henhouses with a lighting system, usually with one lamp for every sixty to one hundred birds. Sixty-watt Edison Mazdas are generally used on 110-volt current, while on 230-volt current a 30-volt 100-watt lamp is used, eight in series. The drop lights are so arranged as to give plenty of light on the roosts, scratch floor and feed hoppers, leaving no dark corners for the drones to seek.

Some poultrymen turn on the lights at 4 A. M., while others begin the day later and use lights awhile in the evening, but so regulated as to give the hens about twelve hours of activity. The hens must not be given a day of more than twelve or fourteen hours, as their hours of rest will be shortened. An overworked flock will be the result. If lights are used in the evening, dimmers are provided so the lights can be lessened for fifteen or twenty minutes before turning off. This produces the effect of the going down of the sun, and warns the birds that it is time to roost.

The lights are turned off in the morning by an alarm clock attachment, as it is

most important that the lights are turned on at the same hour each day. The poultryman sleeps peacefully on while the hens begin a day's activity, and when daylight comes he turns off the lights without



View of a small chicken ranch whose owner makes a good living in comfort and health.

leaving the house. How convenient and how efficient!

Another convenience of the lighting system is that the grain is scattered in the straw at night after the hens have taken the roosts. The mash hoppers may also be filled so as to be ready for early consumption. When the lights come on the birds are awakened. They immediately leave the roosts and begin scratching in the straw which covers the chicken house floor and into which the grain has been scattered. If there are no dark corners the whole flock will take advantage of the lights and work busily. With increased activity comes increased consumption of food, and increased production follows. The use of electricity does not force the hens, it merely gives them more time in which to meet nature's requirements during the



At 4 o'clock in the morning the Mazda lamp spreads the light of day and summons the hens to duty.



Hens begin scratching in quest of food before daybreak.

short days from the first of October to the first of March.

Where lighting systems have been properly installed a 40 to 60 per cent production has been maintained during the usual dormant season without injury to the flock, as has been proven by such successful poultrymen as Captain Bodge, R. A. Day and Noel & B. Hoehner and others of the Castro Valley section of the San Leandro district.

Castro Valley has over two hundred poultry producers, each one carrying from 500 to 3000 hens. In one year these hens produce approximately 24,000,000 eggs, valued at \$1,200,000. At present not all of the producers have installed lighting systems, but when they do Castro Valley will produce from 2,000,000 to 8,000,000 more eggs per year.

One can readily see what an advantage this will be to the producers in Castro Valley, for with but little increased expense, from \$100,000 to \$400,000 more per year will be received by them. The average bill for lighting the hen houses in connection with the owner's residence is rarely over six dollars per month during the five or six months of short days each year. Wiring of the chicken houses is a very simple matter and is very inexpensive. Some of the more able ranchers are capable of doing this for themselves. Thus we see that for an added investment of the small sum of thirty-six dollars per year the two hundred producers in the valley will receive approximately \$2000 apiece more per year. What electric lighting in chicken houses can do for Castro Valley producers it can and will do for other producers in other sections. One of the best things about electricity is that it treats rich and poor alike and places its wonderful service within the reach of all. There seems no limit to its adaptability to all the useful purposes of life.



After sunrise the hens come out into the open to relax, for much of the day's work started under artificial light.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

An important meeting of the Executive Committee of our association was held at headquarters on the evening of Tuesday, November 30th, at which Chairman-elect A. U. Brandt, who will succeed Earl Fisher as executive head of the association on January 1st, announced in advance his committee and other appointments that, with the officers and members of the Executive Committee already elected, will make up the personnel of the association's working organization for 1921. Mr. Brandt's appointments are as follows:

Attorney . . . . . R. W. Duval  
Auditor . . . . . F. E. Oldis

### CHAIRMAN of COMMITTEES:

<i>Divisional Activities</i>	R. E. Fisher
<i>Program</i>	E. G. McCann
<i>Educational</i>	W. M. Henderson
<i>Membership</i>	R. E. Crossman
<i>Benefit</i>	Walter Skinner
<i>Advertising and Attendance</i>	D. H. Rountree
<i>Women's Affairs</i>	Geo. H. Searle
<i>Vice-Chairman</i>	Miss Bertha Dale
<i>Vice-Chairman</i>	Miss Pearl Sturm
<i>General House Committee</i>	C. E. Young
<i>Reception</i>	H. C. Bond
"	Geo. B. Baldwin
<i>Athletic</i>	Chas. H. Cowell
<i>Editorial</i>	F. S. Myrtle

In respect to the foregoing, it may be said that the appointment of an attorney is a new addition to our working forces. Mr. Duval, who served this association as treasurer during 1920, is assistant to Mr. C. P. Cutten, attorney and head of the Rate Department. Another notable feature is the appointment of Mr. F. E. Oldis of San Francisco district as auditor of this association. In previous years he has borne the title of chairman of the auditing committee.

At this meeting the hearts of all present were stirred with joy at the announcement by Messrs. Brandt and Fisher of the generous endorsement by the company's administration of the association budget for 1920, compiled at the last previous meeting of the Executive Committee. The budget was discussed at a meeting of the Employees Welfare Committee of the company held the day previous, and after due consideration by that committee of all the items on the list, it was practically

approved as a whole. The next step had been taken by President Creed in presenting the budget to the Executive Committee of the company for its approval and securing its unanimous acceptance by that body.

Without quoting figures, it is enough to say at this time that with the amount the association expects to collect from membership dues the company's contribution will enable our association to prosecute its various activities so worthily as to insure a more than satisfactory record for the twelve months to come. It is indeed a matter for sincere congratulation that the executive heads of our great "Pacific Service" organization not only look with favor upon our association and its activities but deem them worthy of substantial support.

An important feature of the year's activities will be the establishment of divisional sections of our association. As already announced elsewhere, our "Pacific Service" territory is now divided into twelve divisions, and to each of these an invitation has been sent out from association headquarters to form local organizations, with proper officers and working administration, as already provided for in the constitution of the P. S. E. A. Under this arrangement the various chairmen of these divisional sections will become ex-officio members of the Executive Committee of the parent body and will sit in its councils and take part in its deliberations.

Details of the progress of this new feature, the accomplishment of which must result in a largely increased association membership, will be announced from time to time.

Yet another matter of the utmost importance to members is the offer of combination memberships in the Pacific Service Employees Association, the National Electric Light Association and the Pacific Coast Gas Association. A letter has been sent out from headquarters explaining these combination memberships and inviting association members to avail them-

selves of the privileges accorded thereby. In brief, the offers made are as follows:

Combination membership in the P. S. E. A. and N. E. L. A. . . . .	\$5.00
Combination membership in the P. S. E. A. and P. C. G. A. . . . .	\$7.00
Combination membership in the P. S. E. A. N. E. L. A. and P. C. G. A. . . . .	\$9.00

It goes without saying that a large number of our members will avail themselves of these offers.

We certainly grow apace. The business of the association in its various ramifications has developed to such an extent that it has been found necessary to employ an assistant secretary, at a salary, whose business it will be to give his entire time and attention to association work.

At the last meeting of the Executive Committee Messrs. Fisher, Brandt and Robinson were appointed a committee to make the selection, and now the announcement is out that they have chosen Mr. H. M. Anderson, of the Electrical Distribution Department in the East Bay Division. Mr. Anderson will enter upon his new duties without delay, and his offices will be located in the association library at San Francisco headquarters.

Just a word of warning to members. In order that you may come in under the provisions of the death benefit plan, it will be necessary for you to pay your dues for 1921 on or before December 31st. Unless you do this, you run a serious risk, for it has been decided that no death benefits shall be paid on account of members not in actual good standing at the time of decease.

By the time this issue of PACIFIC SERVICE MAGAZINE reaches its readers, the Annual Christmas Show will have been held. As already announced, it takes the form of a costume ball and pageant at Scottish Rite Auditorium, in San Francisco, on the evening of Friday, December 17th. The pageant is to be representative of the History of California. It will be developed in seven phases or episodes as follows:

1. The Aborigines (Indians)
  2. The Mission Padres
  3. The Spaniards
  4. The Pioneers
  5. The Discovery of Gold
  6. The Golden Harvest
  7. Christmas, 1920
- Final Tableau

Considerable latitude in the selection of costumes is allowed. Any period of California may be represented. Follow-

ing the pageant will come the costume ball, with an augmented orchestra. The committee has issued instructions to all who wish to participate in the dancing to come in costume. There will be a Christmas tree and a Santa Claus, and it is whispered that the part of the beneficent visitor whose advent is a source of joyous anticipation in every household will be assumed by our Mr. John A. Britton. The following comprises the Christmas Show Committee:

E. G. McCann . . . . .	Chairman
Geo. H. Searle . . . . .	
D. H. Rountree . . . . .	
Walter Skinner . . . . .	
W. M. Henderson . . . . .	
J. Chas. Jordan . . . . .	
C. E. Young . . . . .	

We have one out-of-town gathering to record since last we told of our doings. On the evening of Saturday, November 20th, there was held a gathering in Marysville which in very numbers beat anything before attempted in that section of our Pacific Service territory. Manager Ed Johnson certainly worked to make the affair something worth talking about, and that he pressed all of his available men into the service was evidenced by the completeness of the arrangements.

This Marysville outing has always had a duck stew for its most attractive feature; consequently, it is not a matter for surprise that the attendance from the outside districts should be unusually large. But this year, notwithstanding the lateness of the season and the inclemency of the weather, the men and women from the outside districts rallied around the "Pacific Service" standard in such force that, counting the local attendance, it was estimated that nearly 800 persons enjoyed manager Johnson's hospitality at the supper table.

Between 50 and 60 came from the bay of San Francisco. Manager Charlie McKillip took charge of a delegation of 40 from Sacramento. Chico, Red Bluff, Redding, all the districts within get-atable range, contributed their quotas to the attendance. Masonic Hall, in Yuba City, was the scene of the festivities, and it was found necessary to erect a canvas addition to take care of the overflow. The surroundings were appropriately made to conform with the nature of the feast. The "heavy gang", as the district employees pressed into service as attendants were called, were all attired as hunters, and the walls of the dining hall



were covered with panels eight feet in height and bearing bunches of thick tulle grass. In this way the color of harmony was everywhere. The tables had to be set rather close, but there was room for the waiters to move between, and it took just fifteen minutes to serve the entire assemblage. There is efficiency for you. Grape fruit, olives, relishes, home-made cakes, rolls, coffee, stew. Some spread, and everybody had enough.

A local jazz orchestra performed during the feasting after which came the minstrel show. This was a performance furnished by local talent, mostly of "Pacific Service." There were the usual end men with black faces and a mixed chorus of men and women. All the old time stuff was pulled off, including local gags, a trio, tenor solos, nigger songs, dances, etc. The following furnished the talent: D. D. Johnson, Frank Bremer, Al Sherr, Eddie Reeves, Frank Booth, Evelyn Miles, Gertrude Taylor, Mayme Barrett, Maude Lubman, Isabell Gill, Maude Anthony, Elaine Wasley, Katherine Gill, Hazel Howells, Estelle Johnson, Gladys Hagerman and Bertha Bowen; Walter Langdon, Farwell Brown, Herbert Crowhurst, Will Wright, George Coughlin, Jack Murphy, Clyde Fogarty, Mark Girard, William Hall, Johnnie Williams, Lloyd Miller and Bill Engel. Other features of the entertainment worth mentioning included an aesthetic dance by Miss Eleanor True and a crayon specialty by Mr. Ed von Geldern. The community singing was led by Howard I. Milholland.

It is worthy of mention that when the show was ready the color of harmony idea was carried out by reversing the panels in the hall, showing bunches of Christmas berries. It was really a remarkable spectacle and reflected the greatest possible credit upon manager Johnson and his associates.

The program of entertainment was preceded by an address of welcome from Judge K. H. Mahon, of the Superior Court, which was suitably responded to by Chairman Earl Fisher.

Outside as well as inside the hall there was display. A string of lights the entire block in front of the hall showed the way

to the meeting. This was the work of Manager Johnson's line crew.

Congratulations, Ed Johnson et al!

In these days when a department of public relations and service is an essential feature of modern public utility organization, it is good to know that one stands well with one's fellowmen in the community in which one resides.

Therefore, it is with pleasure that we note the handsome tributes that are being paid to members of our association who in the recent reorganization of our company's working forces have received promotion. At the present time there lies on our desk before us a pile of newspaper clippings containing complimentary references to such men as Ed Florence, John Kuster, Charlie Northcutt, Jack Fagg, A. H. Burnett, and others upon whom our company's management has seen fit to confer an increase of administrative responsibility. To judge a man by the regard in which his community holds him is, perhaps, no new test, but it is a pretty good one just the same.

In the early part of 1921 there will be something definitely decided about permanent vacation grounds for our members. At the last meeting of the Executive Committee it was announced that Vice-President and General Manager John A. Britton has not only given his hearty approval to the plan as already outlined, but had engaged to further the efforts of our association in every way, even to the point of giving instructions for material assistance in the construction of the vacation camps.

The locations of Lake Spaulding and De Sabla may be counted upon as settled and there is little question that as the "Pacific Service" territory comes to be looked over, other equally available spots will be picked out.

It is intended to devote a special number of PACIFIC SERVICE magazines to the vacation plan, so that our readers may learn for themselves the scenic, climatic and other advantages of the various localities and become sufficiently familiar with each to make a choice when vacation time comes.

F. S. M.





## *The Financial Side of "Pacific Service"*

Following is approximate condensed Income Account Statement for the eleven months ended November 30, 1920, compared with the same period of the preceding year.

### ELEVEN MONTHS ENDED NOVEMBER 30TH

	1920	1919	INCREASE
Gross Earnings, including Miscellaneous Income .....	\$32,060,340.13	\$24,056,519.15	\$8,003,820.98
Maintenance and Reserve for Depreciation .....	4,044,127.96	2,938,247.68	1,105,880.28
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	18,802,604.43	13,160,901.40	5,641,703.03
Total Expenses.....	\$22,846,732.39	\$16,099,149.08	\$ 6,747,583.31
Net Income.....	9,213,607.74	7,957,370.07	1,256,237.67
Bond and Other Interest.....	4,498,645.55	3,904,021.14	594,624.41
Balance.....	\$ 4,714,962.19	\$ 4,053,348.93	\$ 661,613.26
Bond Discount and Expense.....	276,472.96	190,595.54	85,877.42
Balance.....	\$ 4,438,489.23	\$ 3,862,753.39	\$ 575,735.84
Additional Depreciation Reserve.....	916,666.67	916,666.67	.....
Surplus.....	\$ 3,521,822.56	\$ 2,946,086.72	\$ 575,735.84
Dividends Accrued on Preferred Stock.....	1,665,624.95	1,416,691.41	248,933.54
Balance.....	\$ 1,856,197.61	\$ 1,529,395.31	\$ 326,802.30
Dividends Accrued on Common Stock.....	1,558,519.32	1,558,519.32	.....
Balance.....	\$ 297,678.29	—\$ 29,124.01	\$ 326,802.30

The increase of \$8,003,820.98 in gross earnings, representing volume of business only, is attributable (A) to the acquisition of the Northern California Power Company, Consolidated, in October, 1919; (B) to the lease of the Sierra and San Francisco Power Company as of January 1, 1920; (C) to the net addition of 37,054 customers to the Company's distribution system since January 1, 1920, representing the normal growth of eleven months, irrespective of the acquisition of other properties; (D) to the rate increases made effective in July, 1920, to compensate for higher operating costs.

Of the \$8,003,820.98 increase in gross revenues, 84% or \$6,747,583.31 was absorbed by increased expenses and taxes, excluding from these expenses, however, interest and dividends on new capital investments. Approximately 90% of the Company's operating cost is made up of labor, taxes, oil, and other items in which there have been no decreases. Lower commodity prices have chiefly affected construction costs, but their influence so far on operating expenses has been negligible.

The increase of \$1,256,237.67 in net income was offset to the extent of \$929,435.37 by increased interest and dividends, representing a portion of the cost of new money invested in additions and extensions necessary to give service to upwards of 37,000 additional customers. In the twenty-three months period covered by the above comparative statement, the Company's investment in Plants and Properties increased by \$25,205,158.46.

On the whole the above statement indicates that the Company's earning power is becoming more commensurate with the value of its properties and it should be a source of satisfaction and renewed assurance to the thousands of investors in the Company's First Preferred Stock that in the first eleven months of 1920, dividends on preferred stock were earned 2.11 times.

At November 30th, 1920, the total number of customers served was 566,617, an increase of 47,217 in the preceding twelve months. Sales of electric energy this year will exceed 1,000,000,000 K. W. H., and sales of gas will exceed 10,500,000,000 cubic feet.

#### NEW ISSUE OF FIRST AND REFUNDING 7% BONDS.

The following letter has been addressed to the Company's stockholders:

"Pursuant to notice enclosed herewith, a special meeting of stockholders has been called for February 10th, 1921. The purpose of this meeting is to obtain their approval of a modification of the Company's present financial plan which, in the judgment of the Directors, will give to this plan greater flexibility and will aid the Company in securing, upon the most favorable terms consistent with market conditions, such proportion of its future capital requirements as it may be found necessary or advantageous to obtain through the sale of bonds.

The proposed plan does not increase the Company's authorized bonded indebtedness beyond that heretofore authorized by the stockholders, but merely changes the form of the bonds which may be issued in future for such proper capital purposes as may be authorized by the Railroad Commission of the State of California in conformity with the Public Utilities Act.

The plan provides for the creation of a new "First and Refunding Mortgage." All existing bond issues will either be closed or so restricted that no bonds may hereafter be offered to the public except such as may be issued under the new First and Refunding Mortgage, which will be so drawn that bonds may be issued thereunder, as authorized by the stockholders, in series bearing such issuance dates, maturity dates, interests rates and redemption provisions as may be determined by the Board of Directors.

It is proposed to issue immediately \$10,000,000 par value of twenty year 7% First and Refunding Bonds to be designated as Series "A", and to be dated December 1st, 1920. These bonds have been sold, subject to their issuance being approved by the stockholders, and the proceeds will become available to the Company as soon as such approval has been given. While the Company, in conformity with the policy it has pursued for a number of years, has a substantial cash balance, the sale of this new issue of bonds will enable it to proceed, without danger of interruption, with the completion of the Pit River hydro-electric developments now under way, and to provide such other and additional facilities as may be needed to care for the continuing rapid growth of its business. The investment of this new money will contribute materially to the efficiency and economy of service and operations and should result in a substantial increase in net earnings.

Your Board of Directors has unanimously approved the plan herein briefly outlined. The Railroad Commission of the State of California, by order dated December 20th, 1920, has authorized the issuance and sale of the initial issue of \$10,000,000 bonds above described, subject to the formal approval of stockholders and the submission in completed form of the mortgage securing the bonds.

As the law requires the consent of two-thirds of the stockholders, the Board will appreciate an immediate response to its request that the enclosed proxy be signed and mailed in the attached envelope. Your prompt action is essential in order that the money derived from the sale of the \$10,000,000 of bonds above referred to, may without unnecessary delay, become available for the very important work of new construction now in progress."

## *Every Electrical Man a Stockholder*

The above title might well be adopted as the slogan of a campaign that was launched early in December by men prominent in the electrical industry in Northern California and which has for its purpose the enrollment of the electrical men themselves, that is to say, men connected with every branch of the electrical industry, wholesale or retail, in the lists of holders of power company securities.

It is a question of selling the idea to the industry itself. That sounds peculiar after so much publicity has been given to the hydro-electric situation in California and the need of unrestricted development of the natural resources of the State; nevertheless, the idea was presented in sufficiently plain terms by Mr. Garnett Young of San Francisco when presiding at a campaign luncheon of the Electrical Development League.

"Where a man's money is, there is his heart also," said Mr. Young. No explanation of the object and purposes of the campaign could have been more eloquent.

The men of energy and resource who are interested, directly or indirectly, in the electrical industry in California have seen the handwriting on the wall and are determined that no obstacle shall stand in the way of the much-needed development that is to give California her rightful place among the progressive states of the Union. Consequently, when it was proposed to launch a special sales campaign among the electrical men it was not found difficult to engage the active services of the men at the head of the power industries. The campaign was launched at the luncheon previously referred to and the attendance was so large that it was necessary to engage the ballroom of the Palace Hotel for the purpose. Previous to this a number of committees had been organized under captaincy of Mr. W. S. Berry of the Western Electric Company. San Francisco had been divided into five districts and a committee allotted to each, the five committee captains being Messrs. Lee Van Atta, G. Anderson, H. C. Hopkins, C. B. Kenney and H. S. Jones. The work in Oakland, Alameda and Berkeley had been handed over to Committeeman J. A. Vandergrift of the Na-

tional Lamp Work, Oakland, seven captains reporting direct to him, Messrs. H. F. Rea, Robert McDonald, E. A. Crowson, C. L. Gilson, J. M. Gregory, H. Kimball and R. Oyler. It was decided to turn the territory outside of the bay districts over to the jobbers, who during the two weeks of the campaign would instruct their traveling salesmen, approximately twenty-five, to solicit subscriptions from every electrical man called upon. In this way it was thought that everyone in the electrical business would be approached to become a stockholder in some active electrical power enterprise.

It may be said, then, that the campaign had been actually started when the luncheon was called and that the gathering had for its main object the hammering home of the power sales idea to the hearts of the men of San Francisco.

Mr. A. Emory Wishon's idea of self-interest was brought forth as the governing principle of the campaign. "It's your interest as well as ours, for, without us you can't live," was the message that was to be delivered to the dealer, the jobber, the contractor, the agent, the manufacturer, every electrical man, in fact, not immediately connected with a light and power corporation. Mr. Wishon was on hand to explain this idea in his own terms, as he had done on many previous occasions, and in doing so he gave a humorous account of a trip to New York, where he had succeeded in telling this self-interest story to a company of hard-headed technical editors.

"It's no labor of love. It's just a hard-boiled proposition," said Mr. Wishon, "to tell the people what central station development means to the electrical industry. A sum of \$500,000,000 will be wanted for development right here in the next eight years. At least one-quarter must come from the State of California. People must be made to appreciate what the electrical industry means to them, that no industry in the world stands more for the conservation of fuel and labor. They must be taught what the industry means to the individual in the commercial world, how large a percentage of the power com-

panies' financial outlay is distributed among various classes of labor and merchandise."

To give a single example of what one company had done, Mr. Wishon said the San Joaquin Light & Power Company, of which he is general manager, had given the means of irrigation to 600 farms and operated 3000 oil wells, saving to the State 1,825,000 barrels of oil yearly, which would have otherwise been consumed by pumping plants.

"The development of the Pacific Coast depends entirely upon electrical developments," Mr. Wishon continued. "The greater portion of western territory depends upon it for irrigation of its arid lands, if its agriculture is to be further extended. If factories are to be built in the West, cheap power must be obtainable in order to conserve fuel and labor. If work is to be provided the laboring man, this development must continue.

"More production—greater conservation—is demanded by the people. We must put over the idea of what the electrical industry is doing in dollars and cents for the individual man, and what lack of electrical development means to him in losses. Prove your case to him by proving where his pocketbook is hurt when the power business is hurt, and you will have a convert who will see business prosper."

Mr. Wishon closed with a warning to the committeemen about to undertake the sales campaign. "Don't sell this stock unless you can sell the idea—the idea that power development means conservation of labor and fuel and the opening of new industries. If you can't sell the idea, we'd rather you didn't sell the stock."

Another speaker whose words struck home was Mr. John A. Britton. Mr. Britton started out with a statement that of 22,000,000 acres of tillable land in California less than 4,000,000 were under cultivation, with a population of 3,500,000 people. Of hydro-electric resources but 940,000 horsepower had been developed, leaving an estimate of 9,000,000 horsepower awaiting development.

The surface had only been scratched, in fact.

"But the power companies can't succeed unless they have the undivided support of all branches of the electrical industry," urged Mr. Britton. "You must sell the idea on a question of 100 per cent loyalty." Statistics showed that there were 14,000,000 homes in the United States not wired for electricity, that there were 100,000 industries lacking electrical power. Now, in California the public service corporations stood ready and willing to give the public full and complete service, if only allowed the facilities for doing so. Taking the Pacific Gas and Electric Company, as an example, that corporation numbered 31,000 persons among the holders of its securities. It stood, therefore, merely as a trustee of the people, doing business at cost plus whatever margin of profit might be allowed by the regularly constituted regulated body of the State.

At the conclusion of Mr. Britton's address, motion pictures of the power developments now in progress on the Pit River were exhibited. As before stated, Mr. Garnett Young presided, and another speaker was Mr. W. L'Homme-dieu, who, like Mr. Wishon, presented the doctrine of self-interest. He also propounded the idea that the public should be educated upon the value of electricity, should be taught what a single kilowatt will do, and in this way obtain something like a comprehensive idea of what development in kilowatts and kilowatt-hours means in the direction of agricultural and industrial progress.

At the conclusion of a two weeks' campaign which followed this luncheon Mr. W. S. Berry, as the chairman of the committee on power companies' securities, announced that his teams had obtained 150 new subscribers to power stock among the men of the electrical industry in the bay region.

It was decided to take a recess during the Christmas holidays and to renew the campaign over an extended territory after New Year.



## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - - BUSINESS MANAGER

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### EDITORIAL

Christmas joy-bells are once more ringing their time-honored message through the land and again the hearts of all, young and old, echo the words that come to our lips, "On Earth Peace, Good Will Toward Men." And so it comes that as we prepare to follow the rites and ceremonies that are part of this season of gladness we look back upon the twelvemonth that has gone by since last King Christmas knocked at our gates, pass in review before our mental vision the events that stand out in relief from the commonplace of routine and ask ourselves:

"What have we done and what prospect lies before us?"

Speaking, as we should, for the cause that lays nearest to our hearts, we of "Pacific Service" feel that the past twelvemonth has been more than eventful. There have been changes within our own organization, and another figure stands at the helm where for many trying years stood one to whom, more than anyone else in the world, "Pacific Service" owes its proud position among the successful public utilities of the country; but our new commander is stalwart and capable, so that our bark glides bravely on, with all canvas spread

and a fair wind behind her, on her mission of progress and prosperity. But "Pacific Service" has done more than steer its course through the hidden rocks and shoal waters that beset the public service of today. This utility is in a fair way now to stand before the commonwealth of northern-central California and say: "Come what will, there shall be no more shortage of power."

What a message like this means to the people of our "Pacific Service" territory need not be told. Too fresh in the memory is the drastic action which the Power Administrator of the State of California found necessary to take in order that each active industry might obtain its share of what sustenance the rapidly drying mountain streams had to give. But our company already had an anchor out to windward, and when the command "Let's go!" flashed from headquarters and the actual work of construction was commenced on the Pit River and its tributaries, there arose in every heart of our "Pacific Service" family a feeling of pride as well as of relief; of relief that the period of long tension was past, of pride that in a very few short months our company would be in a position to claim its due for timely aid in the hour of need. For, as has been heralded far and wide, the waters of the Pit River region are of constant flow; there is but little difference in volume between the wet season and the dry; in a word, the power development of that region means an end to all fears for the future so far as concerns the maintenance and progress of the agricultural and industrial activities of this section of the country.

Speaking generally, the electrical men all over the State have awakened to a realization that a new era is dawning. Twenty-five years ago to speak in millions when discussing public utility enterprise would be to invite ridicule, if not suspicion. Only the other day our company's president told of five hundred millions of capital that will be needed in California within the next ten years to provide the hydro-electric development sufficient to take care of the industrial and agricultural growth of the State, and not one soul within the sound of his voice but felt that not only was this true but that the money would be forthcoming when required.

It will be a big job. It means years of intensive financing. The life of an executive head of a great public utility in our midst will be anything but one of ease and comfort. The problems are big and they must be met in a big way. Already the work of "selling the idea" has been entered upon. Power companies have for some time been disposing of their securities to their consumers, and now they have started a campaign to interest every person, directly or indirectly connected with the electrical industry. "Every electrical man a stockholder" is the slogan of this campaign and it is already producing results.

The people want to be shown. The doctrine of self-interest must be driven home to them. They must be made to see that in the prosperity of public utilities lies the prosperity of the community in which they operate. The sanctity of the regulating body of the State must be upheld; in broad and unfettered regulation lies the safety of the commonwealth, the protection of the public utility and the public alike. The voice of the political agitator must not alone be heard in the land. The story of progress must be told in terms that will appeal to the sound common sense of a people whose minds incline to justice if they are but instructed upon the facts. Facts, not fancies, will furnish the ultimate answer to the problem, and it lies in the power of the men of enterprise in this Western community to present the facts in such telling fashion as to clear the public service atmosphere of the clouds that have long hung over it.

The story is a simple one, after all. If it had been told in the beginning and told right there might not have been the need of such a campaign as lies before the public utilities today. But it has to be told now more than ever, for the response must come in volume as yet unheard of if it is to prove worth the telling. The public attitude must be one not only of friendly sympathy but of active support. It is really and truly a question of self-interest all-around, if nothing else. And so we of "Pacific Service" who have our part to play in this great campaign rise to

face the issue with the knowledge in our hearts that our cause is a good one and must prevail. With this feeling we extend the hand of fellowship to all within the sound of our voice, and in keeping with the custom of the time give to one and all the most cordial season's greetings.

A MERRY CHRISTMAS AND A HAPPY NEW YEAR!

Following the announcement by President Creed of a reorganization of the company's working forces, as published in the November issue of PACIFIC SERVICE MAGAZINE, the executive heads of the company among whom the various departmental responsibilities have been distributed have completed the task of reconstruction made necessary by the new order of things.

The organization of the departments reporting, respectively, to the Vice-President and General Manager, Second Vice-President and Treasurer, Vice-President in charge of Electrical Construction and Operation and Vice-President in charge of Public Relations and Service, will be found in a list of the company officials elsewhere in this issue.

One of the old familiar faces will be missing at the next roll call. Mr. J. W. Hall, for many years manager of the San Joaquin District, has resigned after a lifetime spent in the public service. That he will be missed goes without saying. His constant courtesy and affability toward all members of the "Pacific Service" family made a trip to Stockton something to be looked forward to. In announcing his resignation, Vice-President and General Manager John A. Britton writes as follows:

"In accepting the resignation I do so with sincere appreciation of the very many years of loyalty and devotion Mr. Hall has given to the company and its affairs in his position in Stockton. He has set a mark for others in "Pacific Service," and the good wishes not only of myself but of all the executive officers and, I am sure, the heads of departments and employees of the Company go with him in whatever new field he may select for himself."



## Tidings From Territorial Divisions

### East Bay Division

A farewell was given Fred George, Al Parratt and A. U. Brandt in honor of their transfer to the General Office. The occasion was a luncheon, and considering that the three had been educated and trained by the Alameda County District, the program partook of a school graduating exercises as follows:

#### GRADUATING LUNCHEON Emeritus Bill Shuhaw Principal

##### THE CLASSY

Current Events—Essay ..... Fred George  
Closing the G. M.—Essay ..... Al Parratt  
Valedictory—Oration ..... A. U. Brandt

Suitable Remarks ..... Tony  
Felicitations ..... Johnnie Clements  
Our Alma Mater ..... Van E. Britton  
Presentation of Diplomas ..... L. H. Newbert  
Benediction ..... Dean Kirk  
Demi Tasse

Bill Shuhaw introduced the numbers in humor and pathos.

Fred George told of his early experiences in the Electrical Department and how it led up to Current Events.

Al Parratt, who had had charge of the Accounting Department, had to do with construction accounts. Work is authorized under what is called a "G. M." and when the work is finished, it becomes necessary to make the final accounting, or "Closing the G. M." So Alfred said:—

"Closing the GM—the subject is appropriate. A GM has been closed, closing today, but it has been open a long time—since 1904, in fact then I among others congregated in the back office at 13th and Clay Streets to be taught the rudiment of the mysteries of gas by Mr. Leach. He gave us the same assurance as being held out now (and lived up to)—that the sky is the limit. We can go as far as our individual capabilities will carry us and that is a grand thing from any angle you wish to take of it.

"From present indications it appears that those promises are on the road to redemption. A decided movement upward has started and all the boys, yes, and the girls too, feel encouraged, for the districts are being drawn on for Head Office and higher other district activities.

"We have all looked forward, some are prepared, others may not be, but they will all endeavor to be prepared hereafter, for all will want a whack in the future plums.

"The company has done everything it can to encourage such preparation and it is now up to us.

"The old GM being closed, a new one has been authorized. Among those recently requisitioned for duty in other places was 'Yours Truly' with a modest program of helping to put all other district offices—or should we now call them division offices—on an equal footing with good old Alameda—Some program."

A. U. Brandt, the past master of the electrical distribution department very humorously and feelingly told of the pleasures and regrets.

Tony on behalf of the faculty was brief and Uncle Johnnie said:

"Fred George, speaking for the bunch, I must say that we are truly glad of your promotion. Altho we cannot see why this is thus, your branch of the business has always been a mystery to most of us—you have had that owl-like look—you have impressed us with the idea that you are a wise one, and the longer we have known you the more mystified we have become. Your business is such that only a wise one can manipulate. You have, no doubt, gained much of your wisdom while you have been sojourning in Alameda County. That they need you over there goes without saying—and we all feel sure you will bring into perfect synchronism all that lies between the mountains and the sea, the hillsides and the plains. Fred George, we congratulate you, especially do we emphasize this because we know that you have learned your mysterious art, not from book knowledge, not from a few year's work in any great educational school or college, but rather it has been by constant, continuous, ardent work on your part by your own personal efforts—Fred George, we say to you Godspeed.

"Alfred Pennington Parratt, and now they are taking you away from us. You who have so carefully watched over the

accounting end of our great concern, always taking the utmost care that no guilty dollar escaped without giving full account of itself. You too came into the primary class of the Alameda County Division, serving in the Collection Department, as managing Chief Clerk of the Berkeley Office, and then to the position that you now fill here. They tell us you are going to travel! If that is so then we are sure of your success for we have traveled with you and therefore we know you are some traveler.

"Albert Upp Brandt—You, too, are about to leave us, no doubt to be employed in a larger field of endeavor, which, we all feel, you will be fully competent to fill to the utmost. You, too, are being drawn from the Alameda County District: as here, no doubt, you have been able to acquire the knowledge so essential to the fulfillment of duties that lie before you. We know that you will ever have in your heart a soft place for those of us you leave behind. You are to become the companion of the Alameda Division men that have gone before you, men of whom this side of the bay has always been proud and who, in turn, have always been proud of the fact that they were primary pupils in our great industry."

Van E. Britton spoke of our great parent organization as the Alma Mater and the rearing of us here for greater service.

Division Manager Newbert presented the diplomas.

Fred George was asked to stand. His duties had been Load Dispatcher, having to do with handling of power houses by telephone orders. His was read as follows:

"Fred R. George has completed the prescribed course in telephoning power houses. His department has been good, his voice never going beyond a dam. In his lines he has been letter perfect, divining trouble before it occurred. Therefore he is bestowed with the degree of Doctor of Divinity." Then came the others:

"Al Parratt has completed the course in literature. His writings have been distinguished for profusion, research and penetration. He is decorated with degree of Doctor of Letters.

"A. U. Brandt has completed the course in slide rule practice. He has collected and memorized a vocabulary of many rare, unique and unusual technical elec-

trical words, so is given Degree of Real Engineer."

Dean Kirk closed with a tribute and read the list of those who had gone from Alameda County to the Head Office as the

#### ALUMNI:

J. A. Britton  
Frank G. Drum  
W. E. Creed  
F. A. Leach, Jr.  
C. J. Wilson  
S. J. Lisberger  
F. C. Piatt  
R. C. Powell  
O. A. Knopp  
E. G. McCann  
R. E. Crossman

Mrs. L. M. Ross, nee Marcella Adams, has returned from her honeymoon and is happily back in the Purchasing Department. Mrs. Ross was married Thanksgiving eve., at the home of her parents and later left for San Diego and Los Angeles to spend the honeymoon. Cupid has been keeping a close watch on the girls of that department, but we are wondering if Leap Year is not responsible for the inspiration too.

Now girls, "fess up".

The electric boys gave A. U. Brandt a dinner surprise as a last farewell upon his promotion to San Francisco. Bill Shuhaw had distinguished himself at the farewell luncheon and was requisitioned for toastmaster because Bill always has something to say. The main speakers were four of a kind, Joe Worthington, L. B. Smith, Roy Cowles and Homer Keesling. Then it was volunteers from the floor, W. E. Owens and J. A. "Scottie", the old time boys, boys in overalls as they styled themselves, were especially good. The occasion closed with presenting Mr. Brandt with an elegant gold watch and chain.

On the night of December 2d the 60 KV Bay 2 line came down at Orinda Park, and in falling, struck and killed an unlucky wildcat that happened to be roaming in that vicinity.

Berkeley's hunting record is still 100 per cent.

On account of the change occasioned by Mr. R. A. Gentis taking over the Electric Distribution, W. B. Allatt and Harry Abernethy now have their headquarters in Oakland. Berkeley will miss them and hope their work will not prevent them paying an occasional visit.



Yes, the East Bay Division has country papers. We note one editorial.

"With a bad cold and a broken arm we are working under difficulties this week but a kind sympathetic subscriber said, 'Don't get out any paper at all, we won't miss it.'"

Ray Biven, the distinguished elderly looking gentleman at the 13th St. office, after waiting upon a foreigner was offered a tip of 25 cents which he gracefully and embarrassingly declined. Shortly after the customer returned and was waited upon by handsome Bill Kelly. The customer was very profuse upon getting the information and attempted to put 15 cents into Kelly's hand. Now why is Ray 10 cents better than Kelly?

The Alameda Sugar Company at Alvarado completed its 100th day run this season on Tuesday, November 23d, which includes continuous work by day and night shifts without a single shutdown being made for any cause whatever. This remarkable performance is attributed to efficiency of the management and the harmonious working force in general.

By the way, there is absolutely no difference in sweetness or cooking properties between cane and beet sugar, regardless of impressions to the contrary. This is a relic of old days of competition. There is no way of telling the difference by appearance. The only difference is in a laboratory test by the shape of the crystal.

Charlie Jordan, the Division publicity man, receives all of the country papers and thereby is up to date socially. If you want to know about our country customers ask Charlie.

Charlie says, "The Byron Times knows how to say the nice thing. 'An anti-mashing crusade has been started in Oakland. It might be all right in some cities, but not in Oakland. It's almost as impossible not to smile at an Oakland girl as it is to refuse to enjoy the fragrance of a beautiful rose.'"

You will remember, or can imagine, while at Mr. Brandt's dinner surprise how luscious was the grilled steak. Of course everything was right up and tasty, course after course. The Peerless Cafe is well named and Mr. Lorenzen has made

the name. Anyway, L. B. Smith had just gotten one delicious taste of that juicy steak when he was rushed away on high line trouble. We all felt sorry for Smithy and would willingly finished his steak for him had politeness permitted and had we capacity for more. Next day one of the boys expressed condolence with Smithy that he had been robbed of a perfectly good dinner. Smithy replied that anyway he had gotten in and had something for his money. He was better off than a man he knew of, who had been robbed of \$5.00 just standing in front of a restaurant.

E. B. DEVISION.

### Sacramento Division

We are in the throes of reorganization. We are coming closer together, although further apart. San Mateo and Redwood, your loss is our gain; we are pleased to receive Mr. Florence and his estimable wife and family to our midst. We hope they will like us as much as we will like them and enjoy them. We also have hopes that they will not have to live in tents but will be able to find a desirable residence. We are offering gold medals to anyone finding vacant houses. Like the giraffe in the country man's idea, "There ain't no such animal."

The present prices of supplies and labor are practically prohibitive to the erection of new buildings. Everybody is like Micawber, waiting for something to turn up. But, with the reverse English, they are waiting for everything to turn down.

Something did turn up here the other day in a political way when, by a vote of practically five to one, we adopted a new charter which will place the City of Sacramento under the managerial form of government. We are awaiting future developments.

We have received quite an addition to our street car system in the form of a flock of new one-man street cars. Believe me when I say they are regular speed-burners and assist in improving the service of the line wherever placed; they are really a very neat appearing car and are up to the minute in all their equipment.

We are earnestly looking forward in this division to the establishment of the

local section of Pacific Service Employees Association. We feel that it will establish an *esprit de corps*, a germ of competition with, shall I say, mother or father sections in San Francisco and Oakland. Every man and woman should be a member of the Association and we feel here it will not take us long to put out a 100 per cent banner when we can show employees that they are to be personally represented in the entertainments, the educational features, and the financial benefits of the P. S. E. A. The great triumvirate of S. Y. S., Sacramento, Yolo and Solano will be a war cry to incite to battle. Come on, you battle scarred veterans of San Francisco and Oakland and observe our movements; that is, when the proper orders are issued for the gathering of the clans. Let's go!

We begin to breathe easy for the campaign of next year's water supply. The nightmare of 1920 we feel will not recur this coming summer and fall. As we write, the king storm of the season is on and the snow and rain fall are great. We always know that the "Early snow makes late water" and that's what we want—late water and lots of it. It's a little rough on the service just now, but it is certainly worth putting up with for the elegant results of the future.

We anticipate that the Annual Jinks will be a most interesting affair. From what we heard it will be a wonderful display but, it is with regret that we find that the date is Friday the 17th, thus making it practically impossible to have a large attendance from the interior. It will take two days of anyone's time to attend, and this is practically impossible. If these large affairs were set for Saturday nights then the out-of-town members could have the pleasure of participating without making a great sacrifice and interfering with the company's business as the present dates always do. Let us see what can be done with the picnic and annual banquet.

Of local interest, I might mention that our patriarch Joe Beer is writing a sketch of his life, but complains that he finds it very hard to write of his present co-workers. His language is a trifle ambiguous. Whether his subject is a hard one or that he cannot find proper paper to write on, we don't know. We will

suggest he try an indelible pencil on asbestos paper and perhaps the result may satisfy him.

Miss Eva Martin of the Railway Department has announced that she is about to go into the matrimonial business. We felt that, if we did not get the six-cent fare something of this kind might happen. We will be sorry to lose you, Eva. But I say that with a reservation; for be it known although our beauties all are getting married, we don't lose them. There is a certain glamor, shall I call it a certain fascination, a certain atmosphere of good fellowship, of true friendship, that seems to permeate our associations here so that, even though they do get married, the girls are still true to Pacific Service.

While speaking of our gains let us not forget our losses. Miss Ethel Batelle, for years our head stenographer, an elegant, capable woman, packed up her little work bag and went to become a "whaler", by this I mean become an instructor in the Public School system of our city. Ethel, we miss your cheery presence.

Mrs. Costain of the Commercial Department also has joined the list of whalers and is now one of the valued teachers in a school for private secretaries. I somehow or another feel that they both after awhile will join our list of newly weds who, when the "Pacific Service" roll-call is read, will answer "Here!" Let's hope.

Ethel has been succeeded by Miss Borach, and Clea Uren is studying out the mysteries of the commercial business card systems. Both are very capable additions to our force.

During the past month it is our sorrow to announce the passing of Mrs. A. E. Delenil, wife of A. E. Delenil, in charge of the lamp sales of this district. A very capable woman, a faithful wife, and a devoted mother.

We have heard a meter called many peculiar names, but a Celestial coined a new one when he told our order department the other day that he wanted us to put in a "gasoline box" for himself. He is not far wrong at that.

San Francisco had better look to her theatrical laurels, for we are to have one

of the finest theatres in the West. It is being built by local capital for the Lasky Players Company. The seating capacity will be 3500. It is to be of the most modern construction, Class A. None of the latest features tending to perfect service, the comfort and safety of patrons, will be omitted. The building will cover a ground space of 100 by 160 feet, and will be on L Street facing the new Capitol extension grounds. The main entrance will be by inclined plane beginning at Kay St., and running through the old Turner Hall to a suspension bridge crossing the alley at an elevation of about twenty feet. The balance of Turner Hall is being converted into a modern office building and the entire improvements will cost practically \$1,000,000.

In keeping with the spirit of the season allow me to say: Everybody at our place wishes everybody at your place  
A MERRY CHRISTMAS.

THE CAPTAIN.

### Fresno Division

The pilgrimage made to Stockton by the Fresno raisin-fed representation, though beset by a few minor mishaps, was satisfactory and safely accomplished, and the royal good time which awaited them at their journey's end amply repaid for the many weary miles which lie between the southern outpost of "Pacific Service" and the heart of the San Joaquin district. Twenty-five employees from the Fresno district attended, and though we would not seem to boast, we feel confident our hosts knew we were there.

The Hallowe'en party was a most decided success from start to finish. From the standpoint of setting, no party of this nature could have been better staged and carried out. The entertainment given during the course of the evening was entirely in keeping with the spirit of Hallowe'en. But the bright spot in the whole outing occurred the following morning when a goodly number of Pacific Service employees took a trip down the river in a couple of launches. Coming from the dry but sunkissed vineyards of Fresno the sight of this inland waterway with its ship-ping and river life was a great revelation and added a decided thrill to the

occasion, proving not only <sup>trav-</sup>enjoyable, but instructive as well.

With the Stockton meeting as a stimulus Fresno has organized a local Pacific Service Employees Association with fifty-two members, and as a maiden effort gave a "hard-time" party Nov. 13th, which in reality was hard, both from the standpoint of the appearance of the members attending and, also, the place of meeting, which was the basement of the Gas Office. The scheme of things was carried out still further in the matter of refreshments, hot-dog sandwiches, doughnuts and coffee were served during the course of the evening. Dancing and games in keeping with the occasion were heartily enjoyed by all. This affair we hope will act as an opening wedge to many other enjoyable and instructive evenings, and to a wider and better understanding with our fellow employees.

E. W. KIMMELL.

### North Bay Division

On November 17th, a meeting was held by the members of the Pacific Service Club of Vallejo, our president, Mr. A. J. Stephens presiding. A dinner and entertainment followed.

It was supposed to have been a duck dinner. Mr. Stephens, Paul Wright from the Plant, Mr. Brendel, our new accountant, and Mr. Jerrers fared forth with their trusty muzzle-loaders to bring in the game; but sad to relate, when the mighty hunters returned and the bags came to be unloaded, they were found to contain ten seagulls, four wooden ducks and one tame goose. But better luck next time, Mr. Stephens. P. H. Wright was sick for two days after the hunt. They say Paul cooked one of the decoys.

We had the dinner, though. The ladies of the club saw to that. Our Miss Betty, our Miss Helen and Mrs. Miller doing the cooking and serving.

In way of entertainment we held kangaroo court. Mr. Stephens and Mr. Clarence Snow, acting as judges. Everyone was fined for what he did not do and when it was done, he was fined again. We sure would hate to go up against either Judge if we were crowding the old tin Lizzie a bit on the highway. There has not been a cigarette at the gas works since and there wont

be until payday. Candy was raffled and brought \$21 a box. Two cakes were sold by the pound and brought \$14. Some cakes, we will say.

One cake was made by Mrs. Warren and the other by Miss Braghetta. It's all right Betty, Mrs. Miller says there is no use running after a car after it is caught; but remember, Betty, a bird in the hand gathers no moss. Careful, you single girls, with your cakes.

Mr. Martell, our live wire salesman, acted as officer of the night. We don't care what you lost, Mart, if you don't lose that smile.

Mrs. Jeffers and Mrs. Miller entertained at the piano while Mr. Snow and the girls gave us all the latest songs.

All in all, it was voted one grand success by every one who attended.

The money taken in is to be used at our Christmas celebration about Dec. 20th, given for the children of the employees.

A. J. STEPHENS.

### San Francisco Division

Miss Hilda Gianotti was married in October, to Adrian Oliver formerly of the Collection Department.

Herbert Wilson was suddenly stricken with a severe attack of throat trouble during the latter part of November. Repeated hemorrhages of the throat made necessary an emergency operation at St. Francis Hospital which finally brought relief. The illness was the result of an infection contracted while Wilson was in France.

It's funny if while all the other historical California figures were represented at the Christmas Masquerade, no one went as "Scott" Stewart. Ed Moon says when he landed in San Francisco Stewart was pointed out as one of the old timers. Now Stewart has the added distinction of being the only man in the city who has lived through its three great eras: that of the frijoles, the free lunch and ten-cent coffee.

The repair of the elevator in the San Francisco District building allows Fremont Williams an extra five minutes every noon for lamp counter service.

Jack Willis rises to inquire if a suit be filed to collect an account on a combination ledger, will it be called a union suit?

Louis Willebrand spent two weeks vacation in San Francisco. Sights of a big city always have an attraction for country residents.

Jack Hightower is keeping books this month.

Carl Engle has a new song. "Rolling, Rolling All Over the Blooming Place."

Some of the boys received very thoughtful remembrances from friends at Christmas. For instance, there is Cedric Kasten and Sam Pearce. They were the recipients of tortoise shell dark glasses from admirers.

John Donovan entertained visitors from eight-thirty till five every day during December.

C. R. Nunan left the employment of the company on December fifteenth.

B. D.

### AN UNSOLICITED TESTIMONIAL

Mr. Charles L. Barrett, assistant secretary of the company, furnishes the following interesting account of an unlooked-for visit from an old patron who came to boost, not to knock.

"A very pleasant unsolicited testimonial of Pacific Gas and Electric virtues came to my notice in the call of Mr. J. B. Casserly, of Burlingame, who stated that he had dropped in solely to tell me, we being old friends, what a pleasure and satisfaction it was to deal with our people as against some of the other corporations, mentioning them.

"The latest occurrence and the one which seemed uppermost in his mind today was the changing of the location of a pole for some relation of his, either at Burlingame or San Mateo. I could not quite gather which, from in front of a garage entrance, to the property line. He said our men treated him with kindness and deference and did the work most promptly and without any red tape, that all interested were delighted, and that he had always experienced this treatment in his dealings with us, and that, as he was passing the office, he could not go by without satisfying his inclination to tell me".

## Jesters and Judges of Investment

IN present-day halls of investment you will find jesters and wise men as in days of old. Now, as then, the former gain audience from the unthinking. The latter direct the discreet.

The investment scroll tells unerringly who followed the jesters' alluring promises—and failed—and who prevailed through accepting wise counsel judged by performance.

Every investment recommendation of Blyth, Witter & Company is based on a most searching expert investigation. High yield must be justified by established earnings.

Not generous earnings alone but unshakeable security are found in every investment recorded in our list. Send for it, and we will gladly apply its information to your personal needs.

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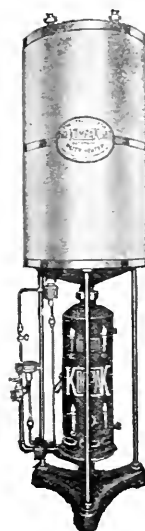
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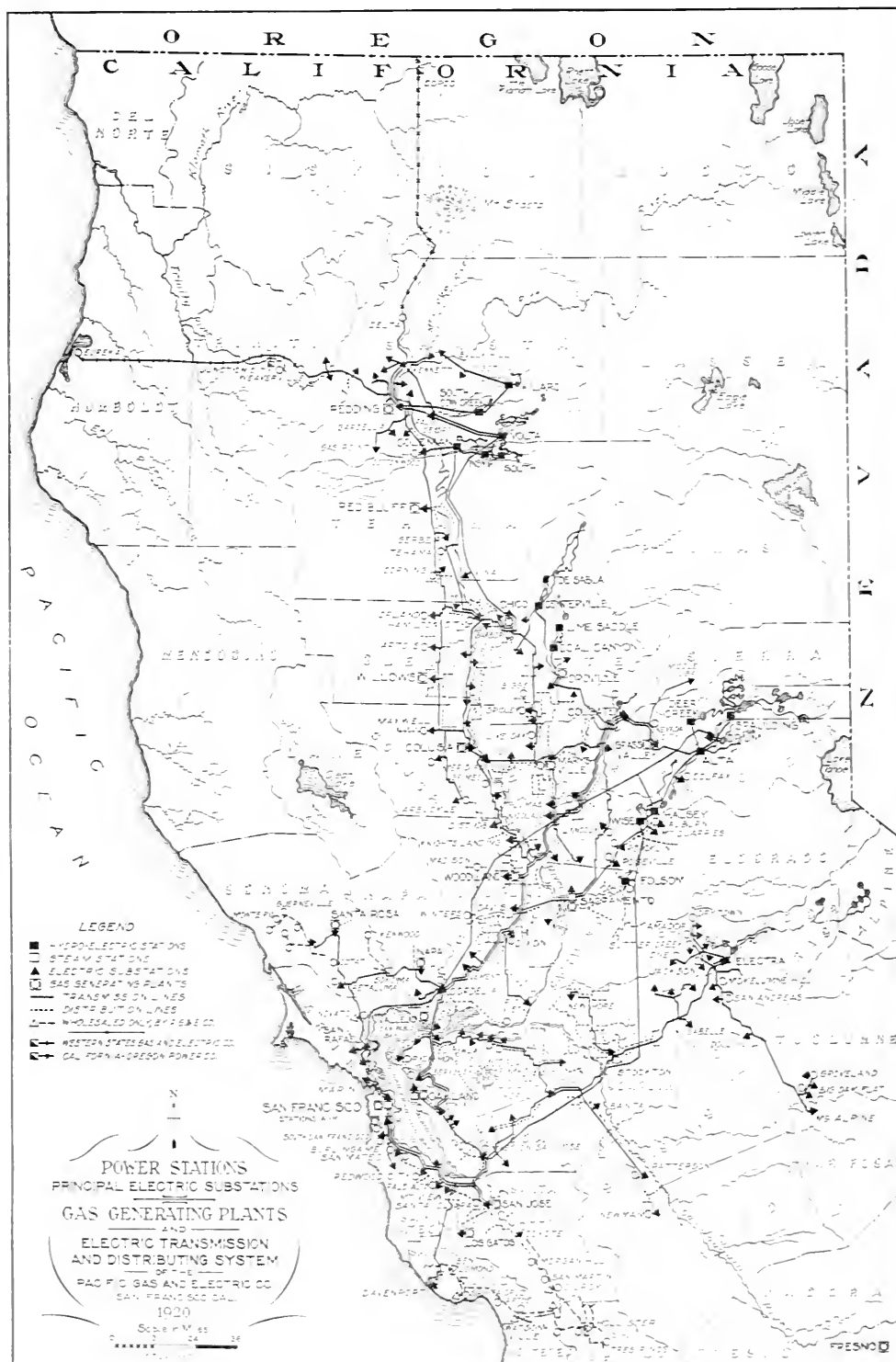
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CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>1</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	350	<sup>1</sup> San Pablo.....	500
<sup>1</sup> Albany.....	2,300	<sup>1</sup> Emeryville.....	3,000	<sup>1</sup> Mission San Jose.....	500	<sup>1</sup> San Quentin.....	2,500
<sup>1</sup> Alvarado.....	700	<sup>1</sup> Escalon.....	500	<sup>1</sup> Modesto.....	14,000	<sup>1</sup> San Rafael.....	6,000
<sup>1</sup> Alviso.....	550	<sup>1</sup> Esparto.....	250	<sup>1</sup> Mokelumne Hill.....	300	<sup>1</sup> Santa Clara.....	6,000
<sup>1</sup> Amador City.....	1,100	<sup>1</sup> Fairfax.....	250	<sup>1</sup> Monterey.....	6,500	<sup>1</sup> Santa Cruz.....	13,600
<sup>1</sup> Anderson.....	800	<sup>1</sup> Fairfield.....	1,000	<sup>1</sup> Morgan Hill.....	750	<sup>1</sup> Santa Rosa.....	11,000
<sup>1</sup> Angel Island.....	280	<sup>1</sup> Fair Oaks.....	300	<sup>1</sup> Mountain View.....	2,500	<sup>1</sup> Saratoga.....	300
<sup>1</sup> Antioch.....	2,000	<sup>1</sup> Fall River Mills.....	500	<sup>1</sup> Mt. Eden.....	210	<sup>1</sup> Sausalito.....	3,000
<sup>1</sup> Aptos.....	300	<sup>1</sup> Farmington.....	400	<sup>1</sup> Napa.....	6,500	<sup>1</sup> Sebastopol.....	1,950
<sup>1</sup> Arbuckle.....	700	<sup>1</sup> Felton.....	300	<sup>1</sup> Nevada City.....	2,900	<sup>1</sup> Shasta.....	500
<sup>1</sup> Atherton.....	250	<sup>1</sup> Folsom.....	2,000	<sup>1</sup> Newark.....	505	<sup>1</sup> Shellville.....	200
<sup>1</sup> Auburn.....	2,800	<sup>1</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950	<sup>1</sup> Sheridan.....	250
<sup>1</sup> Barber.....	500	<sup>1</sup> Fresno.....	48,867	<sup>1</sup> Newman.....	1,200	<sup>1</sup> Smartsville.....	300
<sup>1</sup> Belmont.....	375	<sup>1</sup> Gilroy.....	2,900	<sup>1</sup> Niles.....	1,000	<sup>1</sup> Soledad.....	600
<sup>1</sup> Belvedere.....	550	<sup>1</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400	<sup>1</sup> Soquel.....	400
<sup>1</sup> Benicia.....	2,400	<sup>1</sup> Glenzales.....	650	<sup>1</sup> Oakdale.....	2,100	<sup>1</sup> Sonoma.....	1,290
<sup>1</sup> Ben Lomond.....	800	<sup>1</sup> Grass Valley.....	5,200	<sup>1</sup> Oakland.....	225,000	<sup>1</sup> Sonoma.....	3,000
<sup>1</sup> Berkeley.....	65,000	<sup>1</sup> Gridley.....	1,800	<sup>1</sup> Oakley.....	200	<sup>1</sup> South San Francisco.....	3,750
<sup>1</sup> Biggs.....	500	<sup>1</sup> Grimes.....	350	<sup>1</sup> Occidental.....	600	<sup>1</sup> Standard.....	300
<sup>1</sup> Bolinas.....	200	<sup>1</sup> Groveland.....	250	<sup>1</sup> Orland.....	836	<sup>1</sup> Stanford University.....	2,600
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<sup>1</sup> Broderick.....	600	<sup>1</sup> Hamilton City.....	200	<sup>1</sup> Pacheco.....	250	<sup>1</sup> Suisun.....	800
<sup>1</sup> Burlingame.....	4,000	<sup>1</sup> Hammononton.....	500	<sup>1</sup> Pacific Grove.....	2,900	<sup>1</sup> Sunol.....	340
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<sup>1</sup> Campbell.....	700	<sup>1</sup> Hillsborough.....	950	<sup>1</sup> Paradise.....	500	<sup>1</sup> Sutter City.....	250
<sup>1</sup> Capitola.....	275	<sup>1</sup> Hollister.....	2,500	<sup>1</sup> Patterson.....	500	<sup>1</sup> Sutter Creek.....	1,300
<sup>1</sup> Carmel.....	600	<sup>1</sup> Stone.....	1,000	<sup>1</sup> Penn Grove.....	300	<sup>1</sup> Tehama City.....	221
<sup>1</sup> Cement.....	1,000	<sup>1</sup> Irvington.....	800	<sup>1</sup> Penryn.....	250	<sup>1</sup> Tiburon.....	350
<sup>1</sup> Centerville.....	850	<sup>1</sup> Jackson.....	2,100	<sup>1</sup> Perkins.....	250	<sup>1</sup> Tracy.....	2,000
<sup>1</sup> Ceres.....	250	<sup>1</sup> Jamestown.....	600	<sup>1</sup> Petaluma.....	7,500	<sup>1</sup> Tres Pinos.....	300
<sup>1</sup> Chico.....	15,000	<sup>1</sup> Kennett.....	1,200	<sup>1</sup> Piedmont.....	3,500	<sup>1</sup> Tuolumne.....	1,000
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<sup>1</sup> Colusa.....	2,000	<sup>1</sup> Knights Ferry.....	250	<sup>1</sup> Port Costa.....	1,000	<sup>1</sup> Vineburg.....	200
<sup>1</sup> Concord.....	850	<sup>1</sup> Knights Land- ing.....	400	<sup>1</sup> Princeton.....	300	<sup>1</sup> Warm Springs.....	200
<sup>1</sup> Coran.....	666	<sup>1</sup> La Grange.....	260	<sup>1</sup> Red Bluff.....	3,530	<sup>1</sup> Waterford.....	300
<sup>1</sup> Cordelia.....	300	<sup>1</sup> Larkspur.....	2,000	<sup>1</sup> Redding.....	3,572	<sup>1</sup> Watsonville.....	6,000
<sup>1</sup> Corning.....	972	<sup>1</sup> Lewiston.....	200	<sup>1</sup> Redwood City.....	4,200	<sup>1</sup> Wheatland.....	500
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<sup>1</sup> Cotati.....	200	<sup>1</sup> Live Oak.....	300	<sup>1</sup> Rio Vista.....	1,000	<sup>1</sup> Willows.....	1,139
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<sup>1</sup> Crow's Landing.....	300	<sup>1</sup> Los Altos.....	500	<sup>1</sup> Rodeo.....	300	<sup>1</sup> Yolo.....	350
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<sup>1</sup> Danville.....	400	<sup>1</sup> Los Molinos.....	200	<sup>1</sup> Ross.....	900		
<sup>1</sup> Davenport.....	300	<sup>1</sup> Madison.....	250	<sup>1</sup> Sacramento.....	76,000		
<sup>1</sup> Davis.....	1,700	<sup>1</sup> Manteca.....	2,500	<sup>1</sup> Salinas.....	5,500		
<sup>1</sup> Decoto.....	300	<sup>1</sup> Mare Island.....	500	<sup>1</sup> San Andreas.....	750		
<sup>1</sup> Del Monte.....	300	<sup>1</sup> Martinez.....	3,500	<sup>1</sup> San Anselmo.....	3,000		
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<sup>1</sup> El Cerrito.....	1,200	<sup>1</sup> Mill Valley.....	3,200	<sup>1</sup> San Mateo.....	6,000		
<sup>1</sup> Elmira.....	350						

Unmarked—Electricity only.

<sup>1</sup>—Gas only.<sup>1</sup>—Gas and Electricity.<sup>1</sup>—Gas, Electricity and Water.<sup>1</sup>—Gas, Elect. and St. Railways.<sup>1</sup>—Electricity and Water.<sup>1</sup>—Electricity supplied through other companies.<sup>1</sup>—Gas supplied through other companies.<sup>1</sup>—Water supplied through other companies.

## "PACIFIC SERVICE" FACTS:

Number of Electric Consumers..... 262,705

Number of Gas Consumers..... 283,383

Number of Water Consumers..... 16,303

Number of Steam Consumers..... 434

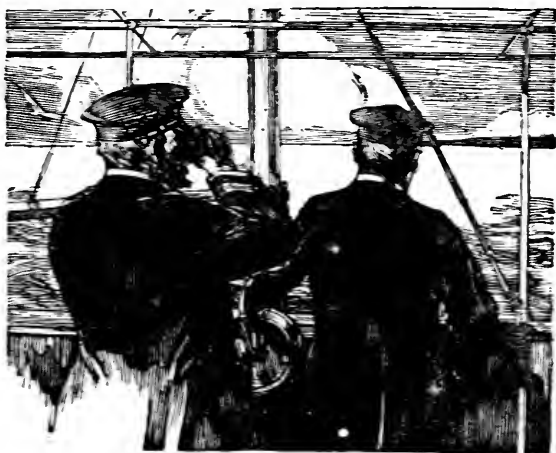
Total number of consumers..... 562,825

Operates 23 Hydro-Electric Power Plants.

Operates 4 Steam-Electric Power Plants.

Operates 20 Gas Plants.





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# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



HAT CREEK ABOVE CASSEL, BURNEY MOUNTAIN IN THE BACKGROUND

Vol.  
12

JANUARY 1921

No.  
8

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# Pacific Service Magazine

Volume XII



Number 8

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Winter scene on the old Boardman Canal on the slope above Drum Power House.

## *Spaulding Power House No. 2—A Semi-Automatic Hydro-Electric Plant*

By GEORGE H. BRAGG, Engineer of Maintenance

**D**OWN in the cañon of the South Yuba River stands the smallest power house on the system, walled in on two sides by high granite bluffs and on the third side by the massive Spaulding concrete dam. No roadway or trail leads the visitor to it and his only choice is a wooden stairway in two flights, the one of 443 steps which lands him at Power House No. 1 and the other of 187 steps which terminates at the No. 2 Power House. Both are covered with wooden housing to protect them from the winter snows.

This development was made possible by the fact that a large head of water was literally being dropped through a vertical distance of about 150 feet from the Drum

canal to the Main South Yuba canal, supplying Deer Creek power house and the Nevada County industries. The quantity varies throughout the year from a minimum of about 40 cubic feet per second to a maximum of 125 cubic feet per second, which, expressed in electrical terms, represents approximately 500,000 K.W.H. of energy annually. Economic use of this was not required until the present year, when, on account of a general power shortage in the State, it was decided to proceed with the installation. That the cost per kilowatt of installed capacity would be extremely low on account of the little amount of new equipment needed, and likewise the cost of opera-



View of Spaulding Power House No. 2. The big 275-foot dam is in the background, its downstream face exhibited to the view.

tion would be small if the plant were made automatic, were the two outstanding arguments in its favor.

The concrete spillway from the afterbay of the No. 1 Plant was found to be properly located and properly constructed for a forebay. A suitable slide gate was set in place within and the first joint of steel penstock was cemented in



Spaulding Power House No. 2, showing penstock and covered stairway.

an opening in the wall, thus completing the head works.

The penstock was routed over the surface of the smooth, steep, solid granite hillside to the power house below. Supported as it is on concrete piers, it will never be disturbed by erosion or slides. The entire conduit is riveted steel pipe 239 feet in length, varying in diameter from

48 inches at the head to 36 inches at the turbine gate.

The building is a reinforced concrete structure, measuring 32 feet long by 23 feet wide by 20 feet high. It likewise rests on the solid granite in the bed of the river, cut deep by the action of glaciers centuries ago. The walls are strengthened by pilaster to support the weights lifted by the crane, and in winter when the snowdrifts cover the roof they are subjected to crushing forces that seldom come upon power plants in California. The hydro-electric unit, occupying the center portion of the floor, was manufactured by the Allis-Chalmers Company. It consists of a 1000-K.V.A. generator direct connected to a Francis turbine by means of a solid horizontal shaft. The entire revolving element is carried by two main bearings on each side of the revolving field, while the turbine runner is overhung on the end of the shaft. The usual pressure regulator or by-pass relief valve is bolted to the turbine scroll case. It operates synchronously with the movement of the guide vanes, thus insuring a constant flow of water, though at times the load on the generator may be temporarily interrupted.

The electric energy is transmitted at a potential of 2300 volts by means of a three-conductor lead-covered cable laid in conduit. It terminates at the oil-switch in the No. 1 Plant, whence it is conducted to the step-up transformer. As this bank is rated at 4500 K.W., it has sufficient margin for the combined output of both plants, although it was originally installed for the No. 1 Plant only.

The switchboard panels for each plant were consolidated as if both units were operating side by side, so that the performance of the remote plant is constantly in view of the operator.

An exciter driven by either a water-wheel or an induction motor was also installed in the upper plant, its connections at the switchboard being so arranged that

it may furnish the exciting current for both units if required.

The equipment described in the foregoing is quite ordinary and in accordance with general practice, but the automatic protective devices and the governor described hereafter are, it is believed, somewhat unique.

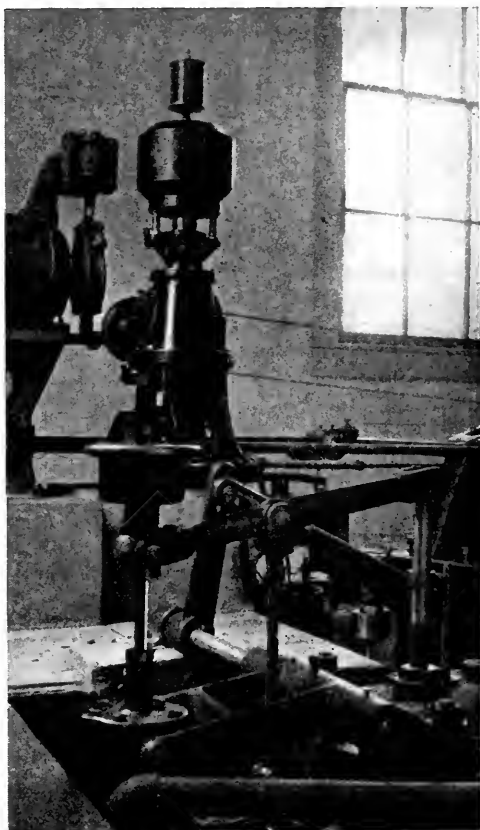
The standard device for speed control in nearly all hydro-electric plants is the oil-operated hydraulic governor accompanied by the oil pumps and pressure tanks, etc. On a large system of many generating units operating in parallel it is not always essential that each unit be capable of governing to maintain constant speed at all loads, and a device that will prevent the unit from over-speeding during periods of disturbances will fulfill every requirement from an operating point of view and is preferred, if it is at least as simple and reliable as the oil actuated contrivances.

On the basis of the above reasoning a spring actuated speed control device was designed and installed. It consists of an induction motor geared to a bronze nut that works on a threaded stem to move the rock shaft lever controlling the guide vanes. The connection from the stem to the lever is a toggle that opposes the expanding force of two springs. The toggle may be tripped and the springs released either by the movement of the fly balls or by an electric current in a solenoid. When tripped, the springs close the guide vanes at a predetermined rate controlled by an oil dash pot.

When the toggle has tripped and the springs have closed the guide vanes, the motor is automatically started up to recompress the springs and straighten the toggle, thus resetting itself without manual control. The re-opening of the guide vanes to speed the unit up or "pick up" load is accomplished by manually closing a small switch on the board actuating the geared induction motor in the direction of rotation to open the guide vanes

through the toggle and lever described above. Obviously the motor can be reversed by the same switch to close the guide vanes when required.

In a plant where regular shifts of operators are maintained it is their duty to closely watch the bearing temperatures, and should one become excessively hot or the insulation of the generator

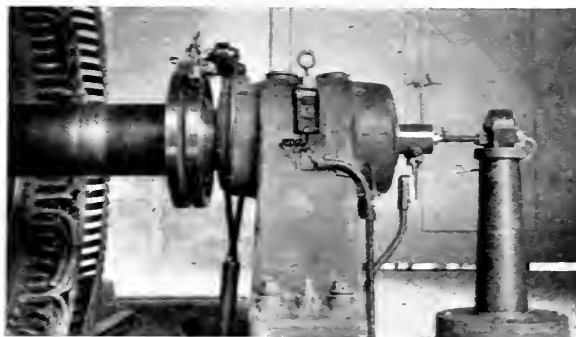


Gate control, speed limit, relief valve mechanisms.

armature fail, thereby producing a short circuit, the operator is instructed to interrupt the motive power and open all switches connecting the unit to the system.

In this automatic plant relays are so connected in circuit that they are enabled to perform similar duty. For instance, if any bearing exceeds a temperature of 90 degrees Centigrade the





Centrifugal switch and speed indicator generator.

relay on that particular bearing will make a contact that will first close the guide vanes and then trip the oil switch and field switch in succession, which is the regular procedure to bring the unit to a standstill; or if the armature winding should short-circuit other relays will be brought into action to do precisely the same as the temperature relays. There are still other relays to function when the short circuit is elsewhere, but they will not operate unless the overload continues for a considerable length of time.

An electric speed indicator is mounted on the switchboard as a means of informing the operator of the actual number of revolutions per minute, taking the place of the belted tachometer. This instrument is actuated by a small specially-built miniature generator mounted on a pedestal at the end of the main shaft and driven by a flexible shaft attached to the main generator shaft.

There is also a centrifugal switch mounted on the main shaft for the purpose of tripping the governor in case of failure of the action of the flyballs, which, for instance, may be occasioned by the breaking of the driving belt.

Spaulding Power House No. 2 might well be nicknamed the "Contribution Plant," as nearly every district of our "Pacific Service" system has furnished some part of essential equipment

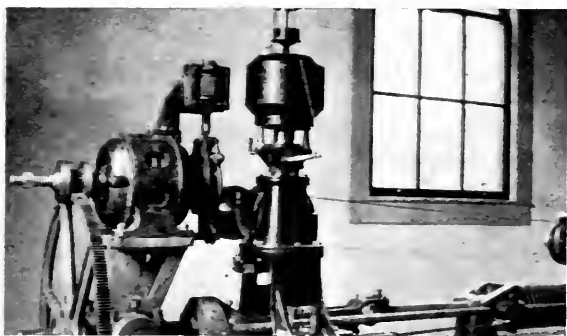
as shown by the following list:

Rome power house in Nevada District furnished the 48-inch steel penstock; Yuba power house in Colgate District, the 42-inch penstock; Colgate District, the 36-inch turbine gate valve; Placer District, the head gate in forebay; DeSabra District, the exciter set; Alameda County District, the old boiler tubes for conduit; San Francisco District, the three conductor cable; Sacramento Sup-

ply District, the switches and instruments; San Joaquin District, the windows and frames; Electra District, the flow meter by which the water is measured; Spaulding Dam, the form lumber, rock, sand and corrugated iron for the building; Yuba power house, Colgate District, the traveling crane.

All of this equipment was obsolete or superfluous in the several districts, but, assembled, it has become as useful as if it had been manufactured especially for this job.

The plant was finally "tuned" and put in steady operation about November 1, 1920. It makes the second of a chain of power plants that extend from Lake Spaulding, which lies below Emigrant Gap in the snowshed region of the Sierra Nevada, and Wise power house in the Auburn ravine beside the highway that runs between Auburn and Newcastle. The whole constitutes the South Yuba-Bear River development of "Pacific Service."



Motor controlling gate opening, also governor head.

## David Augustin White — An Appreciation

BY CHARLES L. BARRETT

David Augustin White, our late Chief of Police, not only was one of San Francisco's most promising young officials but bade fair to be a State asset of great worth.

Although his office was of a nature seeming to induce harshness, his innate sweetness of disposition always asserted itself when among friends, their number seeming to include everybody not a malefactor. This appreciation was particularly general with the employees of the San Francisco division of "Pacific Service," whose co-worker he was for a period of more than fourteen years. In the writer's opinion the outstanding virtue, particularly remarkable in this day and age, in Gus White's inherent make-up or policy of life in dealing with the world at large, was his habit of never deriding or speaking ill of his fellow men. If he could not praise them he said nothing, and this generous mental attribute extended naturally to his home.

He was born in San Francisco June 1, 1875. It is worthy of mention that his father and mother were the parents of fourteen children, nine boys and five girls. "Gus" attended Sacred Heart College as a boy, graduating in 1892 and, after a short period of employment as clerk in a commission merchant's office, took up the romantic life of cattle raising as a cowboy in Arizona. This, seemingly was not satisfactory, for he returned to San Francisco in 1894 and entered the employ of the Edison Light and Power Company, one of the predecessor corporations in the family tree of "Pacific Service," as a clerk, then as new business solicitor and finally as collector. In December, 1896, the Edison Company was merged with the San Francisco Gas Light Company, and "Gus" was transferred with several other employees to the successor corporation, the San Francisco Gas and Electric Company, being suc-

cessively bookkeeper of consumers' accounts, canvasser and manager of the department for acquiring new gas business, in which branch there was at that time active competition. The initiative induced by the responsibilities of this work, it is generally conceded by his friends, materially developed Gus' business ability, so much so that after the earthquake and fire of 1906 he was one of the first men chosen by Allan Pollok, the Company's general manager at that time, to take charge of the distribution of donated food and supplies.

Then, in June, 1911, came his appointment to the office of Chief of Police of San Francisco. Concerning this it may be truly stated that while "Gus" was a natural dabbler in city politics, his father, P. J. White, having been Sheriff of San Francisco from 1868 to 1872, his appointment to the office of Chief of Police was entirely unsought by him and was a surprise to everybody, including himself.

Upon the third day of February, 1908, Chief White married Miss Edith Nicholls, and their married life was ideal.

His death, which occurred upon the 28th of November last, was due to an acute attack of pneumonia induced by influenza. His funeral, with its attendant

service in St. Mary's Cathedral, was the largest and best attended by all classes in the community of any in recent years.

The diamond-studded badge, insignia of the office of Chief of Police, that he wore upon important occasions, was given him by his fellow employees of "Pacific Service." The presentation was made by our great little foster father, John Britton, during a match game of baseball played by department heads in the fall of 1911, shortly after the Chief was appointed.



## *“Service” as a “State of Mind”*

*Dr. B. M. Rastall, industrial expert of the San Francisco Chamber of Commerce, presents some novel points of view in an address to the members of Pacific Service Employees Association*

At the January meeting of the P. S. E. A. in San Francisco, on the evening of Tuesday, January 11, the speaker of the occasion was Dr. B. M. Rastall, a well-known industrial expert from the East who for some years past has devoted his entire attention to studying conditions in most of the big cities of the country. Recently he was invited to San Francisco by the Chamber of Commerce to analyze the industrial needs of the Western metropolis. Since his arrival on the Coast he has attracted considerable attention because of his utterances upon many important questions of the day. Prominent among these is the much-discussed quality of “Service,” which has become the watchword of modern business.

Our Company's president, Mr. Creed, is among Dr. Rastall's admirers and it was he who undertook to secure the expert for the address referred to. Mr. Creed, in introducing Dr. Rastall, observed:

“When the Chamber of Commerce of this city looked about the country to find the man best equipped to study and analyze the needs of the city, to find out what was required for its industrial development and growth and social betterment, the Chamber selected Dr. Rastall. And, because he is a man of vision, because he understands service, because he has dedicated his life to service, and can interpret the human qualities so necessary to realize the ideal of service, I take great pleasure in presenting him to you.”

Dr. Rastall spoke modestly and in conversational style. His address revealed the close study he had given to the subject, and we take pleasure in reproducing it in full.—EDITOR PACIFIC SERVICE MAGAZINE.

### DR. B. M. RASTALL'S ADDRESS

Mr. President, Ladies and Gentlemen: I am very glad to speak to you for a few minutes upon the subject of “Service,” and especially on an evening which you have so filled with service yourselves in your program of music and other graceful things, to say nothing of the very remarkable exposition of telephone service within the past fifteen minutes.

The world is very largely ruled today by two conflicting ideals, the ideal of “Get-all-that-I-can,” which is “selfishness,” and the ideal of “Give-all-that-I-can,” which is “service.” Those two ideals enter into every act, no matter how small, into every world problem, no matter how large. So far as the world follows the law of service, it goes right; almost in proportion as it follows the law of selfishness, it goes wrong.

Individually we have to face many problems, make many decisions, involving selfishness or service, and our lives, big or small, are ordered very largely as we make these decisions.

The business world is full, continuously, of service problems and of service decisions. If a business becomes permeated with false ideals of selfishness, it becomes a pigmy compared with the business that finds the ideal of service and goes ahead with it.

And nations are confronted with their problems of service. When a selfish ideal arises in the world through a nation, we are likely to be plunged into a world war. Great world wars are followed inevitably by reaction to selfish ideals. We are close to a great world war now, close enough to realize that the waves of wastefulness and profiteering and crime which followed in the wake of it were phases of selfishness—false ideals from which fortunately we are now rapidly turning.

And so, in discussing this problem of service, we are discussing a problem which is world wide, vital to each of us individually, to our business affairs, to our social affairs, and to even our largest national affairs.

When I first sat down to think about this subject of service, I began to wonder what service was anyhow, how it could be defined. Soon I found that I had written this sentence: “Service is a state of mind.” And I wondered whether I had written a catch phrase, or had stumbled on a truth; and I then began to analyze the sentence, to jot down notes based upon an analysis of it, as they came. Without much elucidation I want now to just give you those notes as a rough analysis and description of what the service idea is at it appears to me.

“Service a state of mind”—that means that service is a quality rather than a

thing. As a quality, it is a part of character; and as a part of character it becomes something of the very essence of human life, and of the wellsprings of human action.

Now, what are the attributes of this state of mind we designate "Service"? First, service is an attitude rather than an act, the spirit back of a transaction rather than the transaction itself.

You know it is possible to perform a courteous action in such a way that it is positively discourteous. I very well remember a few years back a man in a New York street car saying to me, "Will you move over, please?"; and the tone of voice in which he said it was such that, instead of moving over, I wanted to get up and thrash him. Yet he had observed all the forms of courtesy. I remember, too, a few years back in Chicago, that if you went to visit a business man his customary greeting was, "What can I do for you today?" What better slogan or what better attitude could be adopted by the members of an association like this than that regular greeting to the visitor, "What can I do for you today?"

Service may be described as an attitude of mind that says, "What can I give?" not "What can I get?" It grows out of an innate friendliness. In other words, it is a practical expression of the friendly mind. Friendliness is the result of putting one's self in the other fellow's place. It is doing as one would be done by. And so, for service we have an attitude of mind, a quality that says, "What can I do?" which grows out of friendliness, which is simply nothing more nor less than another expression for the thought or sentiment of the Golden Rule. And so we arrive, I think, at a fair definition of Service.

Service is the carrier of the gospel of unselfishness; it is the thing that distinguishes the great mind from the small. Here is a world of truth. As you travel about the country and meet people and have business relations with them, you will find certain men affect you as being big, fine, large, broad, in all of their attitudes, while others will impress you as being mean and small. And you will find, if you analyze the situation, that it grows out of the attitude of mind whether the man is taking an unselfish, service attitude toward life and its problems or

whether he is taking a small, miserly, selfish attitude. This whole attitude simply bespeaks the difference between the service ideal and the selfish ideal.

Service characterizes the gentleman in business. The gentleman, way back in history, was the man who had a certain fineness of manner and an observance of court etiquette. As times advanced the gentleman has appeared more clearly in his true light, until now we have one very definite judgment of modern manners that make the gentleman, that practically all the forms of courtesy have one basis in common, and that is deference to the other person. Gentlemanliness in modern social usage is typified by that deference which means the putting of the other person first.

Business has developed much later than that social usage. But we have today that same situation in business. The man who, with friendly mind, considers the other man first, is the business gentleman and typifies service in the modern business field.

The professions are simply crystallizations of certain types of service. The doctor, as he makes his round of calls; the teacher, as he guides the young idea, and the same with the other professions—they are all crystallizations of a special type of service, and the best people in the professions typify the service ideal everywhere. Of course, the physician, or teacher, or member of any other profession, may prostrate the service ideal to selfishness or gain, with results that are not pleasant to contemplate. Again we have simply the universal contest between the two ideals.

All business grows out of opportunities for service. World economists are united in the idea that business grows always out of the necessity or desire to satisfy wants, to give some form of goods or services to fill human need. And so, whether transportation, or electricity, whether a manufacturing enterprise that produces goods, or the store that makes those goods available in small quantities and delivers them to its customers, business is always giving service. And the business that becomes self-centered, with eye only upon profit is prostrating a service function no less truly than is the professional man who forsakes his professional ideals and becomes simply a grabber for material things.

But we should be taking a very partial view of the subject of service if we left service as merely an idea or an ideal, no matter how great. It is ingrained into the very being of service that there can be no real service ideal unless there is an expression of that ideal in practical terms. Just as the magnetic needle invariably swings toward the pole, so invariably the ideal of service seeks to find its expression in practical act or friendly deed. And these types of service are many in number. There is the visual side of service, expressed in the friendly smile, the hearty handshake; the verbal side of service, expressed in friendly word or in counsel or any of the verbal transactions of business; the psychological side of service, expressed in friendly manner, in courtesy, in various activities of the thoughtful mind; and then the physical side, expressed in the actual acts of carrying out the service itself. Any or all of these types may be combined in a single act of service.

Now let us look at the other side of the shield, the practical side of the service proposition, for a few moments. Service is the greatest thing in salesmanship. Show me a salesman who has trained himself in the laws of service, who has gotten the idea that his salesmanship must render a service not only to his concern but to the customer, and I will show you always a successful man. More and more merchandising and manufacturing establishments are looking not so much at the size of today's sale as to the permanence of the customer and the building up of good will, of developing for the concern through the arts of salesmanship all those features of service which, in the long run and in the largest way, make for the success of the enterprise.

Service is the surest way to advancement and promotion. It has been my good fortune, from one coast of this country to the other, to know well many classes of men and women in business, from the coal heavers on the St. Lawrence river to the largest business interests in some of our largest cities. And I have yet to find an exception to the proposition that business enterprise is always looking for young people with the service idea. The man or woman who starts out with the idea of self-training in those things that express service, in courtesy and knowledge of the enterprise and con-

sideration of customers and that general putting of the enterprise and service first, that sort of employee always finds larger and larger opportunity for advancement ahead of him.

Service is the greatest business builder in the world for the enterprise itself. We talk a great deal about good will and we know that certain great enterprises in America have built up extraordinary business values for themselves through this good will. Well, now, what is good will? It is simply the concentrated, cumulative result of service, of having customers who realize that they have been giving something that was worth while, customers that have developed a friendly feeling for the enterprise with which they have been dealing. So in business, as we find the case so many times in life, the selfish policy in the long run is the worst policy from the point of view of the selfishness itself. Or perhaps it would be better put in the term "enlightened self-interest," that self-interest that says, "I want to prosper and want to prosper exceedingly, but I will not prosper from unjust methods or through selfishness." That policy of enlightened self-interest finds its chief expression and opportunity for the greatest success, through the law of service.

In discussing service with people interested in your company, I have assumed that you would naturally want something about electrical service. And when that occurred to me, I said to myself, "I know nothing about electrical service." Then I said, "Hold on. Who does know much of anything about electricity?" And I began to cast back to the various theories of electricity that I had read and heard of, to the day when electricity was considered by some to be a new, queer sort of a fluid. Again it was considered to be a new type of energy, or just one variety of magnetism. Again it was considered something closely related to radio activity. And then fairly recently physicists have begun to connect electricity with light, until many of them are convinced now that light and electricity are simply two different manifestations of the same thing. But we don't know. The point of emphasis is that out of all the theories there has grown a great confusion, and today we are just as unset-

tled about what electricity really is as were the first of the early scientists who pondered upon it.

But there is one thing that we know, and that is that the developments of electricity have brought a great group of new services; that electricity today answers the call of human needs with a line of services unparalleled by any other utility in the world. Back in the time when you read your "Arabian Nights" you probably read of Aladdin and his wonderful lamp, how he rubbed the lamp and genii came to perform miracles for him. Today we press our electric buttons, and the genius of electricity arises to perform feats that pale anything the Arabian Nights ever pictured. We press a button and flood a building with light. We place a little wheel against a trolley wire, and the genius of electricity hurls cars across the continent at top railroad speed. We hitch up a waterfall, and the genius of electricity transmits the power of that one waterfall along a slender wire to move the wheels of industry of a whole great city. We harness this electrical genius in a tube and produce the X-ray, and the physician diagnoses perplexing cases and brings relief where before there had been none. Or, we harness that genius of electricity and throw it out by wireless from the masthead of a vessel in peril, and where formerly there had been no hope at all now the vessel finds relief started towards it almost instantly.

And so, whatever may be true about electricity as a phenomenon, it is certainly true that electricity brings with it always great new things in human service. Therefore, it is natural enough that a group of men and women connected with this great service of electricity should be

interested in the service idea, should want service as the motto of the electrical working ranks.

And now, if I may close with some general applications, first may I say this: that you will find it true in all human affairs that we get out of life about what we put into it. The individual who is small and selfish and miserly, those things that make up the self-centered, ingrowing person, is bound to lead a small life—a life which is unattractive, of small satisfactions, no matter what the financial or other material conditions of that life may be. The man or woman who lives the broad, friendly life, who is willing to express in that life the idea of service, the friendly attitude toward things, the putting of the other fellow first—the gentleman or lady in business or social affairs, that individual is bound to lead a large life, a life full of worth-while things.

This, then, is true, that the life of service is the worth-while life; that as individuals, so far as we can acquire for ourselves the service ideal, so far as we can make our lives a continuous giving of service to people and institutions, just so far will our lives succeed, and just so far generally will we succeed ourselves. In service we have unquestionably found the motive for most worth-while living. In all of our discussion there is nothing absolutely new. Simply a re-stating and developing, somewhat of the teaching of the greatest Teacher of all the ages in the enunciation of the Golden Rule, "Do unto others as ye would that they should do unto you." And the supplement of that Golden Rule, in terse language, is, "It is better to give than to receive."



## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

By far the most important achievement to be recorded in the annals of our Association for the past twelvemonth is the establishment of divisional sections, arrangements for which were discussed in our December issue.

As announced at that time, our "Pacific Service" district organization is now divided into twelve territorial divisions, and to each of these an invitation was sent last November from Association headquarters to form local organizations, with the proper officers and working administration as already provided for in the constitution of the P. S. E. A. It was expected that the various divisions would fall in line with this idea with more or less readiness, but even the officials of our Association themselves were not prepared for the overwhelmingly enthusiastic response that came from all quarters.

At the time of writing eleven divisions are now fully organized and representatives thereof, as ex officio members of the executive committee of the parent body, have already attended one meeting at San Francisco headquarters. Also, by the time this issue of PACIFIC SERVICE MAGAZINE reaches its readers the San Francisco division will have joined the others and the work of sectional organization will be complete in every detail.

Our Fresno and East Bay divisions took the lead in organization. On the evening of Wednesday, December 29th, at a meeting called by Mr. L. H. Newbert, as manager, the employees of the East Bay division met at the office of R. A. Gentis in Oakland and organized their local section, to be known as the East Bay section.

Mr. Newbert presided at the meeting and Mr. R. E. Fisher, former chairman of the Pacific Service Employees Association and present chairman of the committee on divisional activities, was present and in a concise address explained to the gathering the objects and purposes for which the Association had been formed, the work it had done, was doing and hoped to do and the benefits to be derived from membership therein. Mr. Fisher undoubtedly encouraged the popu-

lar feeling in favor of the project and before the evening was over organization had been effected, constitution and by-laws drawn up and adopted, and the following officers elected for the ensuing year: W. W. Shuhaw, chairman; J. C. Bowden, vice-chairman; W. O. Stephens, secretary-treasurer. Mr. Shuhaw as chairman of the section became automatically its representative on the executive committee of the P. S. E. A.

Meanwhile, it had been decided to set Tuesday, January 11th, as sectional organization night through the entire "Pacific Service" territory. In accordance with this plan simultaneous meetings were arranged to be held in the Colgate, de Sabla, Drum, Fresno, North Bay, Sacramento, San Joaquin, San Jose, Shasta and West Side divisions. The two last-named by previous arrangement were combined in one. At a meeting of the executive committee held the week previous members were told off to attend these meetings for the purpose of doing as Mr. Fisher had done in Oakland, explaining the purposes and objects of the Association, its present status and prospects for the future and the benefits to be derived from membership.

The result was success everywhere. The meetings were held on schedule time and to each one was sent the following dispatch signed by President W. E. Creed and General Manager John A. Britton:

"In our behalf extend to the members of Employees' Association cordial greetings. May you and all those associated with you recognize that service is the banner under which you are marching, service not only to the company but also to the public which we serve, and may your division become one hundred per cent strong through the Association in the desire to serve. We fully recognize that the objects of the Association make in its service better citizens and employees and with such ideals success must follow your efforts. To the Association and its ideals we pledge our support."

Taking the divisions in their alphabetical order the following reports are to hand:

*Colgate Division.* Fully 200 men and women members of the P. S. E. A. from various points of the division, including Marysville, Oroville and Colusa, met at St. John's Guild Hall in Marysville. Manager E. C. Johnson of Colgate Division presided and acted as temporary chairman. He also made a short address in line with the policy already outlined by the executive committee, whose representative, Mr. Chas. E. Young, formerly of Marysville district, was on the ground to help in stimulating enthusiasm. A musical program followed the speeches in which various members of the division participated. Organization was effected with the election of the following officers:

Geo. W. Johnson, line department, chairman; J. Murphy, substation department, vice-chairman; Merl Bremér, gas department, secretary-treasurer. Committees on membership and by-laws were also appointed.

*De Sabla Division.* The meeting was held at the Company's office in Chico, with 65 employees in attendance. Mr. I. B. Adams as manager of the de Sabla division, presided and acted as temporary chairman. Mr. D. H. Roundtree of the Commercial Department, acting as the representative on the ground of the executive committee, made an address and inspired all present with his capable outline of the accomplishments, present and prospective, of the Association and the benefits to be conferred by membership.

The meeting was an event in that it was the first get-together gathering of the newly formed division and took the form of a welcome to the boys of the old de Sabla district. The various power plants in the division were represented, namely, de Sabla, Centerville, Lime Saddle and Coal Canyon. Sectional organization was effected and the following officers named for the year:

T. J. Dunn, chairman; J. A. Compton, vice-chairman; G. P. Welschke, secretary-treasurer. Various committees were appointed.

After the meeting an adjournment was had to Elks Hall, where the boys and girls danced until midnight. There was lots of enthusiasm and a successful meeting was recorded.

*Drum Division.* There were 80 employees present at the meeting which took

place in the parlors of Masonic Hall in Auburn. Mr. H. M. Cooper, manager of Drum division, acted as temporary chairman and explained the various activities of the association and the many advantages to be obtained from membership. Mr. J. S. Worthington, a representative from the parent body, was present and gave a most helpful talk which supplied much Association information to his listeners and aroused the spirit of the meeting, which was soon manifested by everyone, and organization was enthusiastically effected with the following officers elected:

Hugh F. Flynn, foreman, Wise power-house, chairman; Chas. Hall, foreman, Deer Creek power-house, vice-chairman; Miss Ethel Heiple, register clerk, Auburn office, secretary-treasurer. The various committees will be appointed at an early date.

Altogether the meeting was most successful, each member leaving with the aim to work for a hundred per cent membership enrollment.

*Fresno Division.* This section was formerly organized on December 16th, but a second meeting was held on January 11th in order to clear up some questions in the business of organization. Mr. W. M. Henderson, representative of the executive committee of the parent body, was present and delivered a most instructive talk outlining the purpose of the organization, its activities and the benefits to be derived from membership. Mr. Henderson's address did much good in getting the business of the organization started in satisfactory manner. The following officers were elected:

R. L. Dunshee, chairman; W. M. Sanborn, vice-chairman; Bill Knight, treasurer; Miss Margaret Gorton, secretary. Various committees have also been appointed.

The meeting, although purely a business one, was most successful and bids well for more and more success.

*North Bay Division* sectional organization was formed in San Rafael, at the San Rafael Improvement Club, with 110 members present, every district being represented. Mr. H. G. Ridgway, manager of the North Bay Division, opened the meeting and explained in a general way the purposes of the P. S. E. A., after which he called upon Mr. A. J. Stephens, manager of Vallejo district, to act as temporary chairman. In the election of officers which followed Mr. Stephens was made chairman; Mr. A. J. Kelly of San Rafael,



vice-chairman, and Mr. M. L. Kornell, of Napa, secretary-treasurer. Mr. R. E. Crossman acted as representative from the parent organization and gave a splendid outline of the objects of the Association and its activities for 1921.

After the constitution and by-laws had been adopted and the organization declared in full swing the floor was cleared and dancing enjoyed until midnight. Altogether it was an enthusiastic meeting.

*Sacramento Division.* The meeting was presided over by Captain G. B. Baldwin, who also represented the executive committee of the parent organization. Capt. Baldwin stated the objects of the meeting and dwelt upon the future possibilities and accomplishments which would result from sectional organization. The business of organization was then taken up and the following officers elected for the year:

Chairman Joseph B. Smith, Sacramento district; vice-chairman, Mrs. G. Little, Sacramento district; secretary, J. W. Douglas, Woodland district; treasurer, Miss M. Genis, Sacramento district.

Various committees were appointed and it was determined that the officers-elect, with the chairmen of the various committees, should constitute the executive committee of the section. The constitution and by-laws are in process of construction and will be completed by the time of the next meeting, January 18th.

Interest and enthusiasm were present everywhere at this meeting and it is safe to predict a splendid future for our Sacramento section.

*San Joaquin Division.* This meeting was held in the Court House at Modesto, with about 85 employees present. The meeting was very interesting and, we venture to say, far-reaching, as it gathered in the employees from five counties, Stanislaus, San Joaquin, Tuolumne, Amador and Calaveras being represented, and several of the members traveling fifty to sixty miles in order to attend. Surely a good record at the very start!

Mr. Charles S. Northcutt, manager of San Joaquin Division, presided and before the transaction of business a roll call was had, each person in attendance arising and announcing his first and last name and where located. This proved an admirable way of acquainting the members with one another and especially helpful in a division which covers so large an area as does the San Joaquin Division.

Mr. R. W. Duval represented the executive committee of the P. S. E. A. and outlined in a most thorough manner the work that had been accomplished by Pacific Service Employees Association and gave a sketch of its future activities.

After the constitution and by-laws were adopted the following officers were elected:

C. R. Gill, Modesto, chairman; J. H. Fagg, Stockton, first vice-chairman; H. A. Walker, Stockton, second vice-chairman; V. Handley, Modesto, secretary-treasurer; Miss Reis, Modesto, assistant secretary. It will be noted that two additional officers have been provided for in the constitution of this section of our organization.

The meeting adjourned with the feeling of enthusiasm and co-operation which will make for steady growth.

*San Jose Division.* The meeting was held at Elks' Hall, San Jose, with an approximate attendance of 225. Mr. John D. Kuster, manager of San Jose Division, opened the meeting with a brief address of welcome and expressed his appreciation of the splendid attendance which spoke well for a good beginning. The representative of the executive committee of the parent organization was Mr. R. W. Robinson. Mr. Robinson made a very fitting and worthy address, setting forth the aims and objects of the Association, its past accomplishments and its future plans, and detailed the advantages to be derived from membership, at the same time assuring the section of the support, encouragement and assistance of the executive committee at all times.

The business of the meeting was then taken up, constitution and by-laws adopted and the following officers elected for the ensuing year:

L. E. Wolbert, chairman; H. S. Lane, vice-chairman; E. A. Danforth, secretary-treasurer. Various committees will be appointed later.

Music was provided during the collection and counting of the ballots. After the meeting adjourned dancing and light refreshments were enjoyed.

The meeting was successful in every way and from the enthusiasm expressed on every side promises a splendid future.

*Shasta Division and West Side Division.* As stated before, by an agreement these two divisions combined in one for organization. The meeting was held at Red Bluff, with a good attendance from both

divisions, and was conducted by Mr. H. B. Heryford, manager of the West Side Division, and Mr. G. R. Milford, manager of the Shasta Division, jointly. Mr. R. E. Fisher represented the parent Association on this occasion and gave his listeners an instructive talk on the purposes, workings and activities of the Association, both past and future, and explained why each employee should become a member of the P.S.E.A. Organization was accomplished with the election of the following officers:

Clifford Bartlett, Willows, chairman; C. B. Copeland, Redding, vice-chairman; W. E. Wilson, Redding, secretary-treasurer. After the business meeting adjourned the floor was cleared for dancing and later a banquet was enjoyed by those present.

The organization of the two northern divisions was successful in every way, and from the interest displayed the prospects are most encouraging for a hundred per cent membership.

And so it was in all the meetings held simultaneously. Interest, enthusiasm, good-fellowship and co-operation shown everywhere. What better beginning could be wished for? And now for a future full of promise.

Organization of San Francisco division has been scheduled for the evening of Tuesday, January 25th. We hope to present particulars of this in our next issue.

The meeting held in San Francisco on January 11th was the regular monthly meeting of the members of the Association. It proved of special importance to the Association as a whole, however, for the reason that the main feature on the entertainment program was an address by Dr. B. M. Rastall, the well-known industrial expert who is now in San Francisco studying conditions at the request of the Chamber of Commerce. Dr. Rastall has given a good deal of time and attention to the question of "Service." On this subject he delivered a most interesting address, which will be found published in full text elsewhere in this issue.

Dr. Rastall was accompanied to the meeting by President Creed and Vice-President Britton and introduced by the former.

The meeting was held in Elks' Hall, on Powell street, and there was an unusually good attendance. The program of entertainment included selections by our "Pacific Service" orchestra, a Scottish dance

by A. W. Davidson, vocal solos by Miss Zita O'Connor, accompanied on the piano by Miss Alice Nelson, and a comedy sketch, "Long Distance," by H. I. Milholland. All of these were excellently rendered and altogether the evening was a most enjoyable one.

The annual Christmas show, particulars of whose program were given in our December issue, came off according to schedule on the evening of Friday, December 17th. Among the entertainments of unique character it will stand out from our record, for it depended for its popularity upon spectacle and character impersonations in place of the spoken word.

The show was held at Scottish Rite Auditorium and the galleries and sides of the hall reserved for spectators were filled to overflowing. The main feature, as already outlined, was a pageant, styled in the program as "A Polyphase Pageant of Progress," dealing with the history of California from the beginning to the present day. It was divided into seven periods or, to again quote from the program, phases, each of which was presented in character and, needless to say, with appropriate costuming.

Phase One dealt with the aborigines. The camp-fire was revealed, around which sat a group of Indians over a pow-wow. The appearance among them of the first white man aroused their savagery, which all but terminated in a tragedy. The whole episode was worked out most realistically. Features of this phase worthy of special mention were an Indian song, "Lover's Wooing," by Miss Zahrah Preble, and a blanket dance by Miss Preble. Miss Myrta Zavita and Mrs. H. Monks were presented as companions of the Princess. Those taking part as Indians were: L. A. Melbourne, leader; Grover Tracy, Daniel Gustafson, Walter Schwartz, Joe O'Donnell, Harry Lemos, Walter Hayden and John Berkhead.

Phase Two took the spectators to the Mission period, when Spanish soldiers travelled up the coast and brought with them the Franciscan friars, who established religious settlements all the way from San Diego to Sonoma. The spectacles showed a group of Indians resenting the arrival of the padres, but, after seeing that the padres were kindly disposed, making friends with them and listening to their teachings. The arrival of a group of Spaniards closed this phase,

which was musical in character, as each one of the friars was a singer of more or less note. Those taking part were: R. E. Fisher, Richard Hunt, Clarence Oliver, Chas. W. Thomas and William C. Nielsen. The last named of these is a prominent member of the Bohemian Club chorus who, despite advanced age, still possesses a splendid bass voice. The selections they rendered were suitable to the Christmas occasion, including "Silent Night," "Come All Ye Faithful" and "The First Nowel."

Phase Three introduced us to the Spaniards, depicted as a care-free, pleasure-loving people making merry with music and dancing. J. Chas. Jordan appeared as leader of the Spaniards, with Misses Helen MacDonald, Mabel Garcia, Leona Calhoun, Grace Buckingham, Eula Sanders, Mabel Willis and Mrs. Zella Trego and Messrs. Charles Carlson, Leon Mills, Harry Jenkins, Ray Casselego, W. O. Stevens, H. B. Greene and Bester Cowell. Special features of this phase were: Spanish song by Senorita Melinda Chazez, Spanish dance by Senorita Melinda Chazez, guitar accompaniment by Senor Halulu Amoku.

Phase Four brought the audience to the pioneer period of California history. Everything was in keeping. A genuine old-fashioned prairie schooner, borrowed for the occasion, attracted the attention of all eyes as it was drawn around the auditorium. The story of the way across the plains was made as near to life as could be. The wagon train was beset by Indians and resented by Spaniards. A party of Uncle Sam's soldiers under "Pathfinder" John C. Fremont, came up in time to protect the pioneers and claim California for the United States. The following took part in this phase: Pioneers: R. E. Crossman, leader; Misses Sammelson, Brewer, Meehan, Tripp, Adele Narienan, O. Heckell; Messrs. W. L. Price, C. Britton, E. Godbier, D. W. Ross, John Clement, R. A. Cotter. Soldiers: W. E. Kelly (Capt. John C. Fremont), Messrs. W. W. Shuhaw, C. H. Cowell, R. C. Griffin, Ray Biven, J. J. Mulgrew, H. W. Beekman, G. A. Nelson, H. Souza, Jos. Worthington, Geo. L. Donovan, A. E. Ferre. A special feature of this phase was a song by Miss O. Heckell.

Phase Five presented the discovery of gold in California, with its horde of adventurers from every quarter of the globe in the costumes of all nations, showing all forms and phases of humanity. In this

phase an interpretative dance, "The Lure of Gold," was most tastefully executed by Miss Erna Halbe. The less romantic side of the California invasion was presented by Sailor Davidson in a horn-pipe. The following took part: Miners, gamblers, adventurers, etc.: Capt. G. B. Baldwin, leader; Mrs. George Smith, Miss May Genis, Miss Anna Radovich, J. Z. Smith; Messrs. E. W. Florence, W. Connors, R. Brown, George Brown, J. W. Coons. Nations: Miss Dorothy Burns, Mrs. Mary Jackson, Miss Helen Eaton, Miss Mary Burke, Miss Edith McConochie, Miss Zita O'Connor.

Phase Six was called "The Golden Harvest," the era of peace and plenty, and the tableau for this was presented upon the stage. It took the form of an enormous horn, needless to say, the horn of plenty, and the fruits and flowers that represented California's golden harvest were little girls, pupils of Miss Lucille J. Byrne. Their names were: Baby Frances La Point, Baby Verna Sechini, Maxine Nicoll, Evelyn Hutchinson, Bernice Byrne, Adeline Breault, Frances Porter, Florence Bevier, Helen Oslin, Dolores Cresta, Flora Coll, Grace Spillane, Adele Byrne, Nancy Knight, Aileen Sechini, Florence Kennedy, Camilla Hall, Anna Moore, Irene McNulty, Alice Burke.

Phase Six served as a prelude to Phase Seven, representing Christmas, 1920. Our ever-young Mr. John A. Britton appeared upon the stage in the garb of Santa Claus, and delivered an eloquent address of welcome. Then he descended to the hall, where he presided at a Christmas tree. There were gifts for each and every one of the little tots who took part in the "Golden Harvest" phase. It was worth while for the older people to observe the childish delight with which each seized its treasure and retired into the nearest corner to enjoy it.

The pageant was the work of Mr. E. G. McCann in collaboration with Mr. D. H. Roundtree. Its periods were musically phrased by our "Pacific Service" orchestra under Mr. Homer Kessling as director. The whole affair was under the personal supervision of Mr. Frank L. Mathieu. It was thoroughly appreciated by all present, from President Creed down.

The pageant was followed by a grand march, in which all who had come properly attired in costume took part. As an interlude between dancing there was introduced a tableau called "Nature's Gift to California. The Industries in Leash

of Electric Power." The most prominent feature of this was Miss Jeanette Doub, representing Minerva upon the great seal of California. Miss Doub will be remembered as appearing in the final tableau of the 1919 show in the character of the Spirit of Progress. Others who took part in the tableau were: Miss V. Hansen, as Agriculture; Miss Bernice Peoples, as Mining; Miss I. Larson, as Manufacturing; Miss C. Looney, as Transportation; Mr. Otto Schultz, as Power.

The idea of a pageant for the Christmas show was a novel one and that it was successful may be claimed from the favorable comments that were cast upon it. The committees all worked hard to make it a success and the credit goes to one and all.

At a meeting of the executive committee held in San Francisco on January 18th, which was attended by the newly elected chairmen of the various sectional organizations, the following schedule of out-of-town meetings and special features for 1921 was submitted and approved:

Sacramento Division, January 29th.

East Bay Division, February 26th. This will be the annual Oakland "frolic."

Fresno Division, February 19th.

San Jose Division, March 19th.

Drum Division, April 23rd.

De Sabla Division, May 28th.

The annual dinner, to be held in San Francisco, June 25th.

The annual picnic, place to be decided later, July 23rd.

North Bay Division, August 20th.

San Joaquin Division, September 9th.

West Side and Shasta Divisions, October 22nd.

Colgate Division, November 12th. The annual Christmas show, to be held in San Francisco, December 17th.

In addition to the foregoing the San Francisco and East Bay Divisions will alternate in regular monthly gatherings. The dates for San Francisco are January 11th, March 8th, May 10th and November 8th; for East Bay, February 8th, April 12th, September 20th and October 11th.

At this meeting of the executive committee a pleasant surprise came to John C. Carmody, who for some time past has been acting as assistant treasurer of the P. S. E. A. He was presented with a gold watch as a token not only of faithful service but, also, of the affection and esteem in which he is generally held.

## *The "Pacific Service" Roll of Honor*

The annual distribution of service badges to employees of our company took place in January, in accordance with the custom inaugurated in 1916, when it was decided to reward long and faithful service with marks of distinction in the shape of buttons bearing the "Pacific Service" emblem.

These buttons are different in design according to the grade of service. Those indicating ten years' service are plain; those indicating fifteen years show one star in the apex of the emblem triangle; those indicating twenty years have a single diamond, twenty-five years' service a diamond and a star; thirty years' service two diamonds; thirty-five years two diamonds and a star; forty years and upwards three diamonds.

The list this year numbers 205 employees, of whom 97 represent employees who have moved up a grade since the last distribution took place, while the remaining 108 find their names for the first time in our roll of honor with the ten years' service badge. The full list follows:

### THIRTY-FIVE YEARS' SERVICE.

*San Francisco Division:* W. G. Plate.

### THIRTY YEARS' SERVICE.

*East Bay Division:* R. W. Miller; *Sacramento Division,* J. T. Williams; *San Francisco Division,* F. C. Ensinger, Pat Qualters; *San Jose Division:* A. B. Chapman; *San Joaquin Division,* J. L. Brown.

### TWENTY-FIVE YEARS' SERVICE.

*Head Office, Electric Department:* C. H. Lusk; *Drum Division:* Z. Kutschker, Dan Stewart; *East Bay Division:* A. H. Burnett, J. Chrysostomo; *Sacramento Division:* P. Erauw, J. W. Odell, F. G. Sommers; T. Hugill, E. M. Pitt; *San Joaquin Division:* Chas. Joy; *San Francisco Division:* H. Donaghue, M. Lyons.

### TWENTY YEARS' SERVICE.

*Head Office, Commercial Department:* Miss M. Lane; *Colgate Division:* C. H. Becker; *Drum Division:* Harry Davey; *East Bay Division:* A. M. Ballard, H. Bennett, C. H. Cowell, D. Riordan, G. Robertson; *North Bay Division:* F. J. Griffin; *Sacramento Division:* L. Beach, F. R.

Cleveland, R. P. Craddock: *San Joaquin Division*: G. E. Snow, D. E. Madden: *San Francisco Division*: D. O'Brien, D. Gray, Wm. Bowler, Miss C. E. Cosgrove; *San Joaquin Division*: T. H. Prowse, J. F. Tulloch.

#### FIFTEEN YEARS' SERVICE.

*Head Office, Auditing Department*: E. A. Caddy, A. S. Johnson; *Electric Department*: W. D. Skinner, H. J. Van Erkelens; *Land Department*: T. J. Burke, E. B. Henley; *Purchasing Department*: J. H. Hunt, E. O. Mahoney, C. E. Murphy, R. C. Swan; *Colgate Division*: F. H. Trowbridge, E. C. Johnson; *Drum Division*: Gus Anderson, H. M. Cooper, Gus Wilkie, J. H. Carr, Thos. Oliver, J. Sherman; *De Sabla Division*: Manuel Keyes, B. H. Wilcoxon; *East Bay Division*: J. Clements, V. Frederickson, J. C. Jordan, L. H. Krill, P. Mulvihill, H. D. Viers, T. Cox, E. C. Johnson, P. C. Wickersham, L. B. Smith; *North Bay Division*: M. G. Hall; *Sacramento Division*: W. R. Lusk, A. E. Cook, O. I. Evans, F. Johnson, F. Maxwell, H. Strader, C. E. Wyatt, J. W. Coons; *San Joaquin Division*: J. H. Fagg, C. R. Gill, M. P. Werry; *Shasta Division*: Chas. Thode; *San Francisco Division*: Thos. Byrnes, C. F. Engel, W. H. McLaughlin, Bernard Burke, Geo. Ellis, John Hotaling, C. Richter, G. Van Pool, Wm. Creedon, Otto Thews; *San Jose Division*: B. W. Borchers, E. D. Burkhead, G. W. Pollard; *San Joaquin Division*: E. H. Lowe.

#### TEN YEARS' SERVICE.

*Head Office, Auditing Department*: W. J. Agnew; *Electric Department*: R. E. Adamson, E. E. Dodge, C. H. Delany; *Commercial Department*: L. F. Galbraith, D. H. Roundtree; *Vice-President and General Manager's Office*: R. W. Robinson;

*Purchasing Department*: R. H. Hunt; *Colgate Division*: Al. C. Gimblin, C. A. Harbsmier, R. N. Luyster, J. A. Gibson; *De Sabla Division*: Jas. Fogarty, Wm. Lively, C. J. Seevers, Geo. Sharkey; *Drum Division*: A. A. Halliker, J. W. McCrary; *East Bay Division*: H. W. Beekman, M. Cordoza, F. Cox, R. R. Cowles, L. E. Darling, Camille Gentis, G. F. Hays, J. C. Langlois, H. C. Ross, S. S. Shepard, P. C. Smith, J. Wilson; *North Bay Division*: H. L. Hendrix, R. Russell; *Sacramento Division*: Geo. Adams, C. R. Barton, G. D. Busses, E. S. Cahow, J. J. Clement, D. E. Ely, Miss M. Guis, E. M. Hart, Miss L. Hall, O. B. Leman, J. H. Major, A. Myers, D. C. Newington, F. E. Randall, F. A. Rundy, C. Waters, J. W. White, E. C. George, J. D. Keller, J. Reker, C. R. Raysor, R. Williams, W. F. Peterson; *San Francisco Division*: C. H. Suydam, Mrs. Lucie White, A. F. Boggs, Walter Haiden, S. B. Knoph, J. Fargue, D. Wallace, O. C. Lewis, Frank Uyeda, J. Carroll, L. Foppiano, J. F. Reilly, J. Schwartz, Wm. Brill, Patrick Healy, Thos. Lavelle, John Cunningham, Jos. Cunningham, John Doran, B. Pierson, Geo. H. Searle, P. E. Chapman, Walter Henning, G. E. Swinburne, Fred Griffin, Jas. Trevorton; *San Joaquin Division*: B. W. Dodge, W. P. Baldeshwiler, Jas. Brown, O. W. Johnson, Webster Johnson, E. Murphy, C. S. Northcutt, John Podesto, Joe Raggio, R. L. Wilson, W. P. Bedgood, Gus Emerald, Ed Hampton, J. M. Hampton, F. L. Harris; *San Jose Division*: E. B. Parker, F. Carli, W. E. Clampett, G. Ericksson, C. N. Newbert, W. E. Jones; *Shasta Division*: C. L. Cadan, L. R. Gilbert, C. Houston, A. C. Miller, H. D. Shaw, E. Steinhauer.

## How the Boss Was "Watched"

"Let's watch the boss; he's been watching us long enough."

The remark was let drop at a meeting of our division managers in San Francisco a day or two before Christmas. It was taken up, and today our beloved vice-president and general manager, Mr. John A. Britton, carries in his pocket the most modern of time-pieces.

It came about in this way. One of the division managers had noticed that Mr. Britton was sporting an Ingersoll. Something good enough, no doubt, for emergency purposes, but hardly to be regarded

as ornamental. Upon inquiry it was learned that the ancient and honorable timepiece which Mr. Britton had been carrying around for some thirty-five years had at last broken down under the strain. The division manager passed the word to his confreres, with the result as recorded.

It is good to see the pride that lights up Mr. Britton's eyes as he exhibits his new treasure. It is a valuable watch, as good as money could buy, but its real value to its wearer lies in its message of affection and esteem.

## IN MEMORIAM . JAMES NOLAN

Died December 4th, 1920, Aged 80 years



James Nolan wearing his 40-year service badge.

Thus is recorded the passing of a pioneer gas man. "Jim," as he was familiarly called, began work in the Oakland gas works in 1866, but the lure of gold mining and adventure soon took him off to the mountains. Here he had small success, and finally concluded that he wanted to make the gas business his life work. He returned November 1st, 1872.

Even in those days gas was used only for lighting and for that, was a luxury. Kerosene oil lamps and candles were the common means of home and store illumination. But Oakland had its wealthy and progressive people, so the gas works boasted of some two hundred consumers. In those good old days oak trees grew along Broadway. It was no small event when the gas street lamp made its appearance and modernized this aggressive and growing community. Jim was one of the crew of about four men who comprised the gas works crew. In those days 12

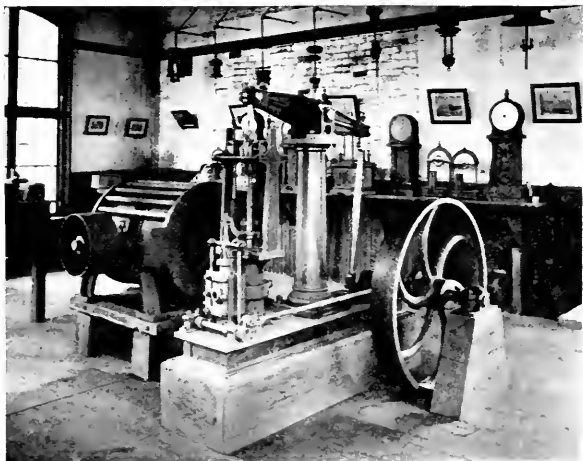
hours was an ordinary day's work and overtime of mere three or four hours was of no concern. It all came within a day's pay and everyone was happy.

Jim came from good Irish stock and was loyal to duty. He was not talkative but took his orders with a simple "Yes, sir." It meant that he understood and that it would be done. It was not his to reason why or argue otherwise. The boss wanted thus or so, and that was law to Jim. Jim was a good executive. He was an equally good private. The real work is done by the private behind the gun and it was his ambition to do his work well. Jim was faithful and always on the job and he soon rose to the position of engineer.

Gas was made from coal which came from England and Australia. All deliveries were made at San Francisco and were reshipped to Oakland. Coal was transferred to barges and schooners and towed over to Oakland as the tides would permit. It was the middle 70's when the first ocean coal vessel landed in Oakland.

The gas company celebrated the event by a banquet. Improvements followed in machinery and methods of gas manufacture. The making of gas from oil instead of from coal was a big stride. Then followed the introduction of the Welsbach gas light, the gas range and industrial uses of gas.

Age and infirmities came upon Jim, so, on June 1st, 1917, he was retired by the company on a pension. He leaves two daughters and a son. In the company he leaves a worthy record and a host of friends.



Early type of steam engine, operated by Jim Nolan, in his capacity of engineer of the Oakland Gas Light Company

## The Financial Side of "Pacific Service"

The following condensed income account statement for the year 1920 is subject to such changes as may be found necessary upon the completion of the annual audit of the Company's books, which is now in progress. It is not believed, however, that the final figures will vary to any appreciable extent from those herein presented.

### YEAR ENDED DECEMBER 31ST

	1920	1919	INCREASE
Gross Earnings, including Miscellaneous Income .....	\$35,385,833.61	\$26,582,687.59	\$8,803,146.02
Maintenance and Reserve for Depreciation .....	4,585,932.88	3,248,482.99	1,337,449.89
Operating Expenses, Rentals, Taxes (including Federal Taxes) and Reserves for Casualties and Uncollectible Accounts.....	20,657,073.48	14,500,644.16	6,156,429.32
Total Expenses.....	\$25,243,006.36	\$17,749,127.15	\$ 7,493,879.21
Net Income.....	10,142,827.25	8,833,560.44	1,309,266.81
Bond and Other Interest.....	4,920,435.71	4,285,256.94	635,178.77
Balance.....	\$ 5,222,391.54	\$ 4,548,303.50	\$ 674,088.04
Bond Discount and Expense.....	306,537.64	207,950.67	98,586.97
Balance.....	\$ 4,915,853.90	\$ 4,340,352.83	\$ 575,501.07
Additional Depreciation Reserve....	1,000,000.00	1,000,000.00	.....
Surplus.....	\$ 3,915,853.90	\$ 3,340,352.83	\$ 575,501.07
Dividends Accrued on Preferred Stock .....	1,777,933.03	1,528,961.46	248,971.57
Balance.....	\$ 2,137,920.87	\$ 1,811,391.37	\$ 326,529.50
Dividends Accrued on Common Stock .....	1,700,202.90	1,700,202.90	.....
Balance.....	\$ 437,717.97	\$ 111,188.47	\$ 326,529.50

The above statement shows a gross volume of business in 1920 of \$35,385,833. This probably puts the Company in second place in comparison with the gross revenues of other like public service corporations in the United States. It is not feasible to make an exact comparison with the volume of business in 1919, but probably \$5,000,000 of the total increase of \$8,803,146 occurred on the properties of the Pacific Company as they were prior to the acquisition of the Northern California Power Company and the leasing of the Sierra and San Francisco Power Company. The remainder of the increase may be attributed to taking over the business of these two companies on October 3rd, 1919, and January 1st, 1920, respectively.

Unlike most industrial enterprises, a gas and electric utility, subject as it is to public regulation, has but limited control over the amount of its capital expenditures. Every new consumer connected to its distribution lines compels an immediate addition to the Company's investment, and this immediate investment is but a small part of the ultimate additional investment that reaches back to the sources from which service must be supplied. An increased volume of business, such as shown in the above statement, is, therefore, always accompanied by a corresponding increase in the amount of additional capital permanently

invested in the business, and if the utility is to be kept alive and to continue giving the service required of it, there must also be a corresponding increase in net income in order that interest and dividends may be paid to the thousands of investors who have supplied the new capital that rendered it possible to give the additional service.

The following facts taken in connection with the foregoing brief statement of elementary principles will contribute to a better understanding of the Company's income account statement, as above presented:

1. The Company connected 39,797 additional customers to its distribution systems in 1920. The cost of new services, meters, transformers and other minor construction necessary to give service to these customers, was approximately \$1,900,000.

2. The Company's total capital expenditures during 1920, including the expenditures mentioned in the preceding paragraph, and also including the larger items of work such as new power houses, transmission lines, important extensions, enlargement of gas manufacturing facilities, etc., were approximately \$12,500,000.

3. The Company's plants and properties account at November 30, 1920, stood at \$164,521,154.34. The new money invested in the business in the two-year period covered by the above income account exceeded \$26,000,000.

It should be added that money derived from the sale of securities is devoted strictly to the construction and enlargement of facilities for serving the public, and may not lawfully, and is not used, for payment of operating expenses, taxes, bond interest, dividends, etc. For the payment of these, the Company must depend entirely upon its revenues. This will serve to explain why, for instance, the decline in the price of copper has not enabled the Company to reduce the cost of manufacturing and distributing its products, as this material is used entirely for construction purposes and does not enter into the cost of operation. The same is true of the major portion of materials which have declined in price, and, as a matter of fact, the cost of labor, oil, taxes, etc., which form about three-fourths of the Company's operating expenses, and constitute the basis for computing the cost of its products, have not declined in price, and, in the case of taxes, are actually increasing.

### FIRST PREFERRED STOCK SALES

Since the Pacific Gas and Electric Company, about six and one-half years ago, first put into practical operation what has subsequently become widely known and adopted as the "Customer Ownership" plan, it has in the period from June 3rd, 1914, to January 31st, 1921, made 12,194 direct sales of its First Preferred Stock for an aggregate par value of \$20,126,450. The following tabulation shows the sales in each year to customers, employees, and others:

	No. of Sales.	Par Value.
1914 .....	3,739	\$8,801,300
1915 .....	1,712	3,785,100
1916 .....	617	1,123,100
1917 .....	650	890,000
1918 .....	192	156,000
1919 .....	53	45,900
1920 .....	3,670	3,634,650
1921 (To Jan. 31st) .....	1,561	1,690,400
Total .....	12,194	\$20,126,450

It seems probable that, judging from the continuing demand for this stock, the present issue of \$5,000,000, which was authorized by the Railroad Commission on November 6th, 1920, will soon be exhausted.



## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

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*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII JANUARY, 1921 No. 5

### EDITORIAL

The California State Legislature is about to investigate the State Railroad Commission. The voice of the political agitator has once more been heard. This time in utterance of the charge that the Commission, having jurisdiction of the public utilities of the State, has decided leanings corporationward, even to the extent of favoring the utilities in its decisions.

Speaking as a public utility, we welcome the proposed investigation. It is high time that this charge of corporation influence be either substantiated or disproven. Too long has the public, or, at least, a part of it, given ear to the voice of clamor and misrepresentation. Those who have taken the trouble to investigate the facts for themselves, those who are honest and fairminded, know perfectly well that the public utilities of California have their cards on the table. Their entire records are open to inspection. The need of rates commensurate with the enormous increases in costs of construction and operation has already been sufficiently well established by facts and figures whose accuracy cannot be gainsaid. Nevertheless, there are persons and institutions seemingly determined to

close their eyes to figures and turn deaf ears to facts; consequently, there is a general unrest throughout the entire State upon this public service question.

Now, the public utilities of California need the confidence and support of the people if they, and the commonwealth of which they are part, are to walk hand-in-hand down the path of prosperity. To gain that confidence, to win that support, the obstacles of slander and abuse must be removed. There is just one way to remove them. Let's have a public hearing upon all these matters and let those who conduct that hearing have one object in view, namely, to get at and establish the facts: not to serve any political purpose, not to obey the voice of popular clamor, but to acquaint themselves and the people of California whom they represent with the facts as they really are.

Facts will tell their own story. And, the facts once established, these questions that have been agitating the air so long will have been answered one way or the other.

The Oakland Enquirer in an editorial published December 14th last discussed the proposed investigation under the heading, "The State Must Rule." It urged that whether the charges which had given rise to the investigation were well founded or had been brought about by misinformation and ignorance, it was evidently to the best interests of the Railroad Commission, as well as of the public, that the complainants be fully heard, and remedies devised if their complaints should be found fairly justified. The editorial proceeded:

"Hereabouts the chief complaints against the Commission are that it has increased rates to private consumers; also, that it has not increased those rates enough! For, that is what the complaints of private consumers as to their rates, and of Alameda and other municipalities as to the 'ready to serve' charge, amount to when taken together.

"For, since the total cost of the aggregate service to the community, with wages for the labor and capital performing it that will keep both on the job, must somehow be paid by the people of that community, it is hard to see how the 'ready to serve' controversy is anything but a dispute whether a bill shall be paid out of the right-hand pocket or the left.

"As to whether any given schedule of rates is justified must, of course, be the subject of periodical inquiry by the Commission, with the decision based on the facts and the principle of 'fair return' in whose whole-hearted adoption California seems to have led the way. Only by holding fast to that principle can efficiency of service be assured, because of what has become the essential nature of the public utility corporation.

"Whatever may have been the speculative opportunities of the past, or the use or abuse made of them, the present situation of these corporations is that of contractors for public service at cost. That is how all the real leaders of the business look at them. 'Cost' must, of course, include such return to labor, management and capital, as will attract them to work and keep them at it. Otherwise the service will not be performed, much less extended, as the needs of the public require.

"Experience has also amply proved that the best results, both in low cost and efficiency of service, are obtained where the regulation is by an authority outside of the local community served. The Enquirer yields to none in devotion to the principle of 'Home Rule,' and is strongly of the opinion that in certain fields our California counties should have more of it. But The Enquirer would not return to the confusions and inequities and, to be quite frank, the corruptions and 'grafts' which so often prevailed in the relations of utilities and municipalities before the regulatory power was taken over by the State.

"The Enquirer holds no brief for or against the Commission, whose methods and attitude it has censured or commended as the merits of the point at issue seemed to warrant. It is the right and duty of the Legislature to hear complaints, and also the Commission's answers or defenses, and to apply correction if found needful. But The Enquirer believes it voices the sober judgment of the great majority of citizens when it affirms that the Legislature, whatever it does, should not impair the Commission's authority to assure that 'fair return' without which efficient service cannot be maintained, and should stand fast on the principle that regulatory power over

rates and service shall remain in the hands of representatives of the whole State of California."

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Under the heading "PUBLIC HATE FOR UTILITY NOW RESPECT," the San Francisco Journal of Commerce in its issue of December 10th last called public attention to the career of a young man who, only three years ago, became general manager of one of the most unpopular gas companies in America and in that brief time has succeeded in so turning the tide of public opinion that just recently he, to quote the article in question, "had chambers of commerce, citizens' associations and other bodies rooting for his company so enthusiastically that they even petitioned the courts to grant the company's request to raise the price of gas!"

The story is of peculiar interest to us of "Pacific Service," for the reason that the young man in question graduated from the engineering department of our company. His name is Ralph Elsmann. For several years he was with us as an engineer of the electric distribution department. When he left us it was to take a job in the Bond and Share Company of New York, and the next move he made was to the King's County Lighting Company of Brooklyn. And now, his name appears before the public as one having displayed remarkable talent in the direction toward which all public service corporations of the day are striving, namely, the attraction of the public good will.

The article is from the pen of B. C. Forbes, a well-known Eastern writer on financial matters. Mr. Forbes accounts for Mr. Elsmann's success as follows:

He knew his job both from the practical engineering and executive points of view. He had his desk placed in the outer office where he could hear every word exchanged between consumers and employees. He abandoned the complaint desk and established an adjusting department where every complainant was made to feel at home and treated with the utmost consideration. He studied his people. He went before the public and talked things over with them frankly. Last, but not least, he carried a winning smile with him.

All the foregoing may be summed up in the word "service."

## Tidings From Territorial Divisions



### East Bay Division

The Once-in-a-While Club, which is everyone who eats, gave a get-together dinner January 6th. It was aimed high and the guests were no other than President W. E. Creed, Mr. John A. Britton and Mr. Frank A. Leach, Jr., as speakers and associates in honor; Mr. A. F. Hockenbeamer, Mr. D. H. Foote and Mr. Paul M. Downing. It was a dinner to the president and vice-presidents, the entire executive and administrative officers of "Pacific Service."

And they were all there, every one of them, so it was some dinner. One of the boys said it was the biggest aggregation of talent ever gathered under a "Pacific Service" tent. Seats were at a premium, limited to the capacity of Ebell Hall, and the place was packed. It was necessarily restricted. The president and the "v's"—the five executives of the company—and the employees of the East Bay Division.

The entire entertainment was by the employees themselves. Homer Keesling had a full orchestra. Clarence Oliver and Agnes Buckingham furnished the vocal numbers: each a solo and then a duet, and everyone was pleased. Division Manager Lee H. Newbert was toastmaster. Mr. Frank Leach was given a warm ovation, for everyone was glad to see and hear him again. There was a feeling of pride in the honor which had come to him. He said he was asked how he liked his new work. He said it was the same "old" work, only a bigger pile. When asked how he liked the new "job," that was different. Working with the associates, those who were there at the table, was, of course, a rare opportunity. Mr. Leach closed by uncovering a large silver trophy cup. This he offered as a prize for a new series of tugs-of-war between departments.

Mr. Britton followed with reminiscences of early days in Oakland: those good old days. They were good days even after having worked twelve hours reading meters, collecting and running services and then coming in at night—the end of a day's work—to find that a meter set was wanted down in West Oakland.

Then, with the meter under his arm, he would hike down to West Oakland. There were no street cars in those days; walking was good. He told how he first knew Frank Leach as a printer's devil and Lee Newbert following the plow. Both knew hard work and only by hard work are things done. It is a rare treat to hear Mr. Britton because his talks are full of pep.

Then, everyone was in expectancy for Mr. Creed. His talk was "Service." He said Mr. Britton was the "dean" in establishing high ideals for utilities and that this company had no bad inheritances. It had been shaped and fostered from its inception by Mr. Britton's policies. Mr. Creed was desirous of coming into this company because those ideals were his ideals. He contrasted the modern idea of service with the days of Rome. Then the merchant endeavored to prosper by perjury in the sale of his wares. At the end of the business day he would ask Zeus or Jupiter and the other gods to forgive him, and impart strength for the morrow that he might better perjure himself. Now, honesty was the only policy. Mr. Creed realized that the success of the company depended upon the efforts of the employees and he believed in the promotion of employees to positions of responsibility. He also recognized that Oakland needed a new office building.

Everyone was pleased and everyone "sure did" applaud. They warmed up to the new president as a friend. One of the boys, a gas man, said, "We got a kick out of that talk." Next morning another said, "Why does everyone seem so happy: I feel like whistling."

L. B. Tyner of the electric meter department has been conducting a short series of weekly lectures on meters. The lectures have been both practical and theoretical and full of interest. Much credit is due Mr. Tyner for his able and competent handling of the subject.

Mr. Lee H. Newbert was the guest of honor at a dinner given by the East Bay Electrical Trades Association at the Hotel Oakland, December 15th. Mr. Newbert, as chairman of the California electrical

co-operative campaign, has done much in promoting the sale of electric appliances throughout the state. The Home Electrical idea as exhibited in the Leimert tract in Oakland was part of the plan. At this electrically equipped modern home there was an average attendance of some four thousand people per day.

The Association, in recognition of Mr. Newbert's work and, also, of his appointment to the East Bay division of the Pacific Gas and Electric Company, tendered him the dinner. There were some 200 present from both sides of the bay and a number from Los Angeles. There were many flattering toasts. Mr. Newbert replied very graciously and attributed much of the success to his associates on the committee in charge. He then gave a talk on "The Importance of Hydro-Electrical Development in California," illustrated by screen pictures.

Ray, the messenger boy who works between the waterfront and the Thirteenth street office, always wears khaki. He says it is the only color that won't run.

Manager Newbert has a standing committee of employees appointed from different departments who investigate automobile accidents and report their findings. One of the members said if it were not for the license numbers it would be hard to "wreckognize" some automobiles.

The Gas House Terriers' Club decided at its last meeting to postpone "Ladies' Night" from January 13th to January 27th, 1921. On January 13th the boys will turn their quarters over for a divisional meeting of the P. S. E. A.

About thirty-five of the gas station "B" boys were at the dinner given in honor of Messrs. Creed, Leach and Britton, and they all vow they will do their best in an attempt to capture the cup offered by Mr. Leach.

A quartet is being organized by the gas boys and within the next month or so gas station "B" expects to have a full set of warblers, led by Herbie Godbier of the meter repair shop.

Station "B" has had a record sick list during the past month, including Alex. MacGregor, Jim Lowe, Phil Harris, B. E. Tyler, H. C. Day and C. H. Cowells.

The holiday spirit that usually is in the air just before Christmas was most noticeable in the bookkeeping department this year.

Shortly before Christmas the address of a family was secured whose circumstances, as a result of continued sickness, made the possibility of a Merry Christmas very remote. When the bookkeepers found that there were seven small children in the family, they rose to the occasion with their usual enthusiasm and started things rolling. On December 24th, five cases left the department filled with food, fruit and clothing, besides candies, toys, etc., for the children.

Our company further helped make things bright with a half-ton of briquets, so that food and warmth will not be strangers for a while. Then the "strong arm squad" got busy and when they were through a fund sufficient to pay a month's rent, an installment on some furniture, and gas and electric bills was collected.

That "It is more blessed to give than to receive" had a deeper meaning was evident from the attitude of all in the department and by common consent it was agreed that the bookkeeping department give itself a "Merry Christmas" each year by trying to find a family in similar circumstances and helping them.

As we are taught to believe, Santa Claus is responsible for all the surprising gifts Christmas Eve, but we often wonder if the dear old man does not occasionally get a surprise, too. Now, when Miss Nora Vogliotti, time-keeper in the accounting department, and Miss Harmina Skeahen, journal voucher clerk, were each presented by Prince Charming with a sparkling diamond ring Christmas Eve, we wonder if Santa Claus was not somewhat surprised at the unexpected gift. Since then Nora has developed considerable ambition along the fancy work line and is earnestly trying to master the art of tatting. Harmina has not demonstrated her ability, but we presume she is carefully studying the surest way to a man's heart—the art of cooking. The new year is shining with bright prospects among the girls of the accounting department and perhaps soon another dream may also be realized and another ring may find a place on the finger of a certain little "bobbed hair" maiden. Now guess.

At the Once-in-a-While dinner Lee Price recognized a young lady across the table as having lived across the street from him and was surprised that she is now working for the Company. He said, "You were a little girl then wearing short dresses." "Yes," she replied, "that was some time ago. Since then I was married; well, I'm still wearing short dresses."

The sale of First Preferred stock is bringing many interesting incidents. An elderly gentleman wrote out his check and putting it down, said, "How is that writing for a man 83 years old?" It was a Spencerian hand clear and well written, signed John R. Miner. He had taken lessons from the original Platt R. Spencer. This was back in 1856. Spencer was then 75 years of age. He taught school in a log cabin at Geneva, Ohio. Spencer farmed during the summer and taught school during the winter months.

Eighteen members of the San Leandro department gathered at the Masonic Temple at San Leandro on Thursday evening, December 30th, to pay honor to W. W. Shuhaw.

It was the family that he had presided over and directed for many moons. He had a personal interest in everyone present by reason of his daily contact with them in their work and problems. By his manner and example he had shown them that "Pacific Service" was an actual fact and really meant something, and he insisted always that in their dealings with the public, courtesy and patience were of first importance. The tables were tastefully decorated by the young ladies from the San Leandro office.

But by far the chief item of the dinner was the mulligan stew originated, prepared, cooked and served by Harry Ross of the collection department. Now this mulligan of Harry's is some stew, and his reputation and fame as a great stew man goes clear back to the days when Fruitvale was the gathering place of a bunch of gay young blades, among whom were Billy Shuhaw, Bill Oswill, Harry Abernathy and William Lucio, and Harry cooked mulligan for them.

After the coffee came the presentation to Mr. Shuhaw from all present of a handsome black walrus brief bag for his papers. In a few well chosen words Mr. Lucio said he hoped the bag would often cause him to remember his San Leandro friends, and he further mentioned that

it was the hope of everyone present that his present advancement was only the beginning of further honors.

It is not often that Billy Shuhaw finds himself unable to talk, but right here he couldn't say a word, and really everyone else had the same choking feeling that he had.

The rest of the evening was devoted to dancing and the singing of old songs, and some very clever stunts by Miss Ten Eyck and Jim Thompson. Bill Oswill surprised and pleased everyone by telling some things that were really true, and more than that, Bill wore his famous hat. When the evening broke up everyone wished Mr. Shuhaw the best of luck for the coming year. E. B. DE VISION.

The following excerpt from a letter written by Mr. W. H. Edwards, Commissioner of Streets of the City of Oakland, dated January 19th, was received at headquarters of the East Bay division:

"In the case of the Pacific Gas and Electric Company, I am pleased to say we have absolutely no complaint to make. If any of the gas company's trenches become rough a word from us is sufficient to have it put in excellent condition, and usually it is not necessary for us to make complaint."

To have such an expression as this is gratifying, indeed. L. H. N.

### Sacramento Division

Well, Sacramento again did herself proud. We went to the annual show. Veni, vidi, vici. We vicied so strong that we captured two of the prizes and were successful in bringing one of them home. Why one? Well, that's another story! Sacramento is proud of her part in the grand pageant. What we did was to the point we were to make. We made it and were through. One regret has been expressed by the young fellow who captured the "Spirit of Gold," and that was that he had no opportunity, or if he did have it, forgot to avail himself of it, to see what kind of looking face the spirit had.

All being said and done we feel that the Annual Show was a grand success and shows what varied genius and talents are within the capabilities of our beloved Association. Our delegation went by auto

and enjoyed a splendid trip without a single unpleasant happening of any description, if we will omit the very close call of "mal de mer" that almost overcome one auto load on the trip from Rodeo to Vallejo on the return trip. There certainly was some sea running and the land-lubbers had an experience they will not soon forget.

The celebrated Smith twins, Joe and George, had a narrow escape from arrest in a San Francisco cafeteria, one on account of his tremendous appetite and the other for trying to dodge the tax collector at the front gate. By the successful working of our "pull" we were able to turn back the bloodhounds of the law and made a successful get away.

We are now strenuously engaged in getting ready for the Sacramento Division party which takes place on January 29th. We anticipate a large attendance and hope to please them all.

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There is every indication that the apex of high prices in the building line has been reached and there seems to be a concentrated effort on the part of all concerned toward putting prices in shape so that the stagnation, in fact, the practical stoppage of new building shall be conquered and the thousands—and I say it knowingly—thousands of proposed and necessary buildings shall be erected.

I attended a goose stew given by the Builders' Exchange at Elks' Hall recently. It followed the organization of a State Builder's Exchange. The prime object of the organization is to co-ordinate the efforts of all the Builder's Exchanges in California and secure a concentration of co-operative endeavor along a common line. The banquet was a great success, and was attended by about 500 of our leading citizens. A very enjoyable program was listened to. As a new axiom I assert that co-operation is the "blood" of trade.

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Our family has been increased by the valuable addition of Mr. E. A. Weston, who has been appointed division superintendent of gas distribution. He has been in the employ of the company for several years. He comes to Sacramento from Santa Rosa. He has also been in a managerial position with the gas organization of the Los Angeles section. A very capable man in a very important position.

This is some busy division in connection with the formation of the new section of the P. S. E. A., but of this later on. You'd be surprised! THE CAPTAIN.

### Shasta Division

With wonderful weather prevailing Christmas was probably one of the most joyous ever spent by the power-house folks on the northern California system. At Kilarc and Cow Creek lay a light mantle of snow, giving a typical Christmas atmosphere. Several of the boys went to Whitmore to take in the dance there, while others visited near-by relatives. Foreman Jess Marx spent Christmas Eve and the following day with his family at Volta.

At Volta there were more families at home. Christmas trees were to be found in the homes of the Dooley's, Hanson's and Marx's. The single lads were all invited out, and a general round of merry-making resulted. During the day following dinner invitations were filled, leaving the mess-house deserted. Foreman Frank Dooley and family visited Inskip and friends for the day.

Everyone stayed at home at South, the relatives doing the visiting. The Gilmore's and the Alexander's pooled their enjoyments with a nice tree for the Alexander kiddies.

At Inskip several trees were in evidence, with the merry Christmas excitement as usual. During the day Foreman Ed Devoe had the Dooleys for guests. The Badgers and the Rolinsons visited their relatives. Chief Operator Arthur Jefcoates spent all of the holidays with his home folks at Red Bluff. The remainder of the lads were all well looked after.

The Coleman folks assembled around a tree at the Cleland home, young Van Ness acting as Santa Claus and handing out many presents. The evening being young, all the young folks motored to Redding, finding dancing and other enjoyments in plenty. Foreman Henry Bertholas and wife motored to Alameda to visit relatives, and stayed there until New Year.

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Our chief, Mr. G. R. Milford, and family, of Redding, as usual spent their Christmas with Mrs. Milford's parents at Anderson. Superintendent of Line Construction Ben Mason and wife, formerly of Kilarc, spent their holidays with Mrs. Mason's parents at Corning.

Superintendent of Power-houses W. E. Wilson of the Redding office, formerly of Inskip, has, indeed, a very tender heart. To each of his hunting companions, named Mike and Mose (at present at Inskip), he sent a five-pound hunk of real good beef with Christmas greetings attached, and stated how he longed to hit the trail with them, go over the old hunting grounds and give the wild animals a run.

Chief Load Dispatcher G. J. Knuthson (by the way a born bachelor), of the Redding office, spent the holidays with his folks in Sacramento. One of the boys out at the plants told the rest that Newt (for short) had married, so on his return he was congratulated from all sides. It took him about four days to convince them all that he was not married. Nevertheless, we realized a barrel of fun out of him. Now, girls, don't crowd him.

G. W. B.

### Colgate Division

With Yuba leading all California counties in the production of gold, the announcement of the Pacific Gold Dredging Company that it has several thousand acres of land adjacent to Marysville under bond for the purpose of making tests to determine the location of gold deposits was received with considerable interest at Colgate division headquarters. The Guggenheim interests, who control the Pacific Company, have been credited with the statement that should the tests prove favorable a new gold field will have been opened up with unlimited possibilities for future operation.

The Guggenheims are prepared to spend vast sums in the development of this new project and predict great progress for the district.

While dredging operations at home are flourishing despite the somewhat chaotic condition of the gold market, Colgate division also has a hand in operations being carried on as far away as South America. At an early date a 900-ton gold dredger built at the Marysville shops of the Yuba Manufacturing Company will be shipped to San Francisco, thence it will proceed to South America and be assembled on the Morano River at a point midway between Dutch and French Guiana. The dredge was designed and built in Marysville for the Guiana Development Company.

One of the most modern hospitals in Northern California was completed shortly after the first of the year at Oroville and has been formally opened. Beside being a handsome building the hospital is said to be equipped with all modern conveniences and is filling a long felt want in Oroville.

The city of Colusa now boasts a Chamber of Commerce which gives promise of becoming one of the most active booster organizations in this division. Officers were chosen with a view to procuring live boosters with the interest of the community at heart, and an active campaign of advertising is in the course of preparation.

Two large California canning companies have entered into negotiations with a group of Marysville business men and Sutter farmers relative to procuring a site on which to build a peach-canning plant in Marysville. At the latest report these negotiations were sufficiently far advanced to permit the statement that the cannery would no doubt be erected in time to handle the 1921 peach crop from Sutter and Yuba counties. This crop, horticulturists estimate, will be the largest ever known.

A strenuous development campaign is being outlined by the Yuba County Chamber of Commerce through its secretary, Robert B. Leopold. Plans for a new union high school building, a gymnasium and public swimming pool, additional accommodations and equipment for the municipal free motor park and the beautification of Ellis Lake are among the projects being put forward. Ellis Lake is a natural body of water lying in the heart of the city. The swimming pool and gymnasium are planned to be built on the lake shore.

Some of the best duck hunting in the United States is to be had within the borders of Colgate division and it has been recently announced that another large tract is to be opened up to the sport. The Rutherford ranch, situated near Gridley, has been sold to a group of San Francisco and Sacramento sportsmen, who intend erecting a clubhouse and utilizing the tract as a hunting preserve.

FARWELL BROWN.

Employees of the Colgate division, representing 37 cities and towns in this por-

tion of the State, met at the office of Division Manager Ed Johnson recently, some 40 employees being present, Oroville, Colusa, Williams, Gridley, Wheatland and Lincoln being well represented.

The object of the conference was to call monthly meetings of the corporation employees to exchange ideas on the betterment of the service and to talk over matters connected with the service. The employees' meetings will be held once a month in the local office in the future.

#### CHRISTMAS AT COLGATE

Christmas at Colgate dawned cold and clear, being a very gratifying change from the past weeks of stormy weather. Evidently Santa Claus joined forces with Old Sol and hung the Indian sign on Jupe Pluve for that day, at least, and the whole colony brightened up as a result. Even the kilowatts wore a holiday aspect as they sung merrily on their way over the bay lines (this is pure fiction, but the kilowatts got there just the same).

Cottage City moved over to the Martin house for the day and joined its bachelor inmates in demolishing an excellent dinner, comprising turkey and all its time-honored accompaniments, including quarts of the brew that made Coffee Dan's famous.

In the evening a dance was held in the local metropolis of Dobbins, but only a few of the best of us were able to scramble up the hill to take part in these festivities.

F. L. Mix.

#### Drum Division

##### DRUM DIVISION POWER HOUSES IN THE HIGH SIERRAS

Christmas! Santa Claus! White Frost! Snow! Sleighs! Snow-laden fir and pine trees! Mountains in the distance, glistening white, are all associated in our minds, from the very first time we hung up our stockings until the present time, no matter how old we are. Many of us, however, are unable to enjoy these pleasures all at one time, but there are a privileged few among our "Pacific Service" employees who get all these thrills, and then some, at the great mountain power plants nestling in the canyons of the High Sierras.

There are men and women and children to whom Christmas and Santa Claus, and all the other proverbial joys, come to in reality. The mountains with their mantle of snow glistening in the sun, the

forest trees laden with snow, the lakes frozen, great icicles formed on the eaves of the houses, wonderful shapes and patterns made by Jack Frost on the window panes, a really truly Christmas spent in really truly style. From our mountain plants we gather the following:

Lake Spaulding. Christmas morning, snow deep, weather clear and cold. Santa Claus arrived on time; apparently his sleigh tipped over and he lost a goodly part of his load, from the way it looked. Young Mac and Nelson juniors could barely be seen under the mountain of toys and good old Santa Claus did not forget the grown-ups. There were beautiful Christmas trees (balsam fir) decorated in the wonderful array. Skiing was the order of the day, and a parade in the evening, which ended at Mac's cottage, followed by a big turkey feed, dancing and music. And speaking of music, Beethoven will rest easy to know that his art is not lost, for one William Gebauer can make the piano sing, talk or cry, as it follows his mood. On this Christmas night it sang so that all sang with it and were happy.

Five families go to make up the camp which it is necessary for "Pacific Service" to maintain to keep the two power houses below Spaulding Dam in operation.

Drum P. H. Christmas, lots of snow, heap cold, fine leather; so says Billy Chin, the favorite "Pacific Service" Chinese cook. Santa Claus arrived at Drum with his usual assortment of good things. He found most of the camp away, as construction work was shut down for the holidays. But the regular operating force was on hand and celebrated in high style. Visitors from the Auburn office were entertained at a dinner served with all Christmas trimmings at the cook-house.

Alta P. H. Santa Claus never forgets Alta, it is one of his stop-over points. He rests his reindeer here, or does he fill up with gas and oil? We cannot say, since we are unable to check out on both gas and hay. Aeroplanes are so familiar a sight in the mountains that he might as well have landed in one, and not cause comment. Anyway he arrived on time and did not forget even the youngest. A home and Merry Christmas was spent by all at Alta.



Deer Creek. Although snowed in, a real good time was had by all. Christmas trees were decorated in fine style. Santa Claus did not forget anyone. He had some tight squeezing to get down some of the chimneys, and was a little surprised to find that some of the men had hung up their wives' stockings, but being good natured he filled them and went his way.

Christmas night all joined in the community dinner given at Mrs. Dan Stewart's, and it was some dinner. A very enjoyable evening was spent in dancing and games. New Year's was also celebrated by a community dinner at Mrs. I. G. Benner's.

H. M.

### De Sabla Division

As the majority of the men at De Sabla power house were away from home on Christmas, we tried to make our Christmas seem as homelike as possible.

The families of the married men and their relatives visiting them were invited to the Clubhouse, which was decorated as only can be done in the regions where holly, ferns and firs are plentiful.

Our menu contained everything that goes with a Christmas dinner. After the dinner we had games and music. We had with us for the occasion two singers of unusual talent who helped to cheer the day, and after the day was over one of our members was heard to say that no one had a better Christmas than we. All of which goes to show that no matter if one is away from home it is the spirit embodied that makes our Christmas what it should be.

To "Pacific Service" and its employees, Accept from us our wish That the New Year to you may bring Peace, Prosperity and Bliss.

J. A. COMPTON.

### Redwood Division

#### TRIBUTES TO ED FLORENCE

E. W. Florence, who was manager of Redwood City district for the Pacific Gas and Electric Company for nine years and who was promoted to the Sacramento division of the concern on the first of the month, was agreeably surprised with a handsome and costly gold watch, the gift of the employees of the Redwood district.

Mr. Florence was quite overcome with emotion, but in a neat speech thanked his former employees for their kindness to

him at all times and pledged them that he would always carry pleasant memories of his stay in Redwood City and would always recall the many kindnesses shown him by the employees of the district. In bidding farewell to the men and women of the office, who were in tears, Mr. Florence was almost overcome with emotion. —Daly City Record, Dec. 17.

Mr. John A. Britton,

Vice-President and General Manager,  
Pacific Gas and Electric Company,  
San Francisco, California.

Dear Sir: The Board of Trustees of this city have learned with a great deal of pleasure of the promotion of former District Manager E. W. Florence to newer and broader fields.

During the past ten years many matters concerning the Pacific Gas and Electric Company with the City of Burlingame came before this board in which Mr. Florence was often called in to "iron out" some little difficulty; that he succeeded so well is proof of the esteem he is held in by the governing body of this city.

While his departure is regretted, the Board congratulates the Pacific Gas and Electric Company in the recognition of such a valued and competent official.

Yours very truly,

J. R. MURPHY,  
Clerk, Board of Trustees.

### San Francisco Division

#### BOOKKEEPING DEPARTMENT NOTES

From all indications the political situation this year will be a lively one. Cedric Kasten reports that the demand for Hoeflers is enormous and we know that this is the best political weather vane.

Jack Hyland says he is glad St. Patrick's Day does not come on Sunday this year. Because of this fact Jack threatens to shame a peacock. Knowing John's tastes we are inclined to believe him.

Blanche Truitt and Flo Linehan are interesting themselves in wireless telegraphy as a means of more expeditiously communicating with a certain steamship.

Harry Lemos prefers dancing with short girls because they cannot look over his shoulder.

Jack Hightower left the employ of the company on December 31st. B. D.

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FROM THE ELECTRIC DEPARTMENT

Mr. Frank Ellis has been promoted from the position of assistant engineer at Station "A" to that of superintendent.

In order to bring to the attention of the employees of the electric department the advantages of the Pacific Service Employees' Association and to secure their membership, a novel procedure was instituted in the office at 812 Howard street.

The department was divided into eight branches and the number of employees of each branch was plotted on a map which was hung in the office. As each day went by the percentage of increase in membership in each department was shown on this map and shortly before 5 o'clock each evening an electric bell rang out the total number of members secured that day.

So far the results from this publicity stunt have been highly satisfactory.

Miss Melba Hart, formerly of the Distribution Department of the East Bay Division, has been transferred to the office of the Electric Department, San Francisco Division.

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GAS DISTRIBUTION DEPARTMENT

The Gas Meter Repair shop is now located in its new home on the top floor of the Company's new building at Fifth and Howard streets. It is one of the best equipped and best ventilated shops in the West, with a floor space of 16,250 sq. ft., and has facilities for handling the meters for the entire system should the exigency arise.

Eddie Woods has been appointed transportation chief of the department, supervising all motor and vehicle equipment, instructing the men as to driving, observance of traffic ordinances and the prevention of accidents.

Ed is a capable fellow and will have the co-operation of the entire department. Bear in mind, Eddie, the transportation you nearly furnished to the last picnic.

George Hold was an honored guest last month at a home party given by the ladies of San Francisco supply office. Some popular boy, George. How do you do it?

Announcement has reached us of the marriage of Miss Sarah Ober, formerly employed in Mr. Barrett's office, to Mr. John A. Daly on October 12, 1920.

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INDUSTRIAL GAS FUEL USES.

There are many prospects in a large city where gas for fuel can be studied and in many instances an installation made which will ultimately lead to a large gas consumer. It takes time, however, to overcome many little difficulties in the application of gas for any particular line of work. I have in mind one instance where, after trying at different times for approximately thirteen months, gas fuel was at last installed successfully.

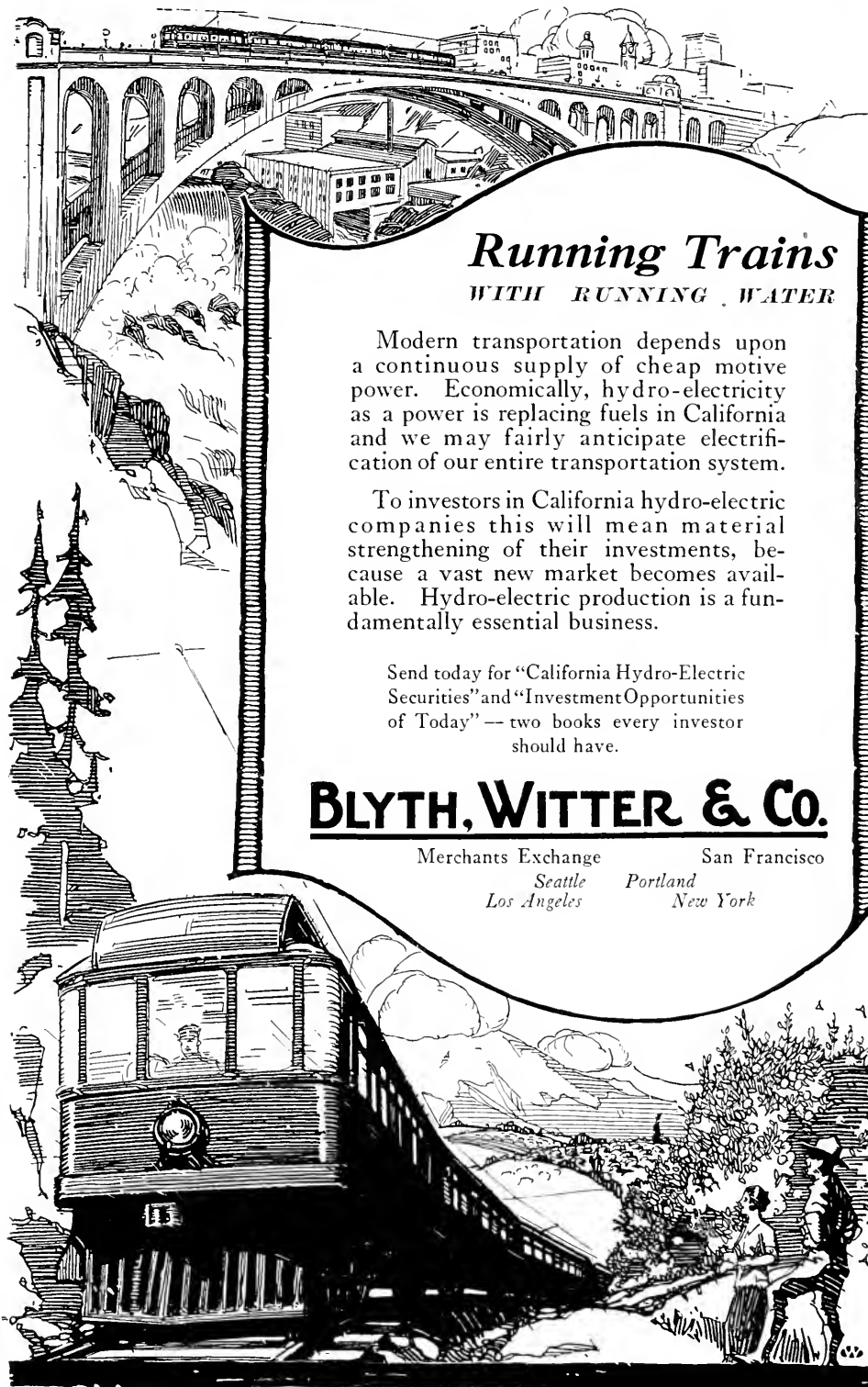
On first entrance to this particular shop study had to be made as to the possible application of gas. Other fuel than gas was in use for heating angles, brackets, etc., as this concern was manufacturing wagons, auto truck bodies and hand trucks. After selecting a certain branch of the work as the best prospect to work on, I was compelled to first convince the manager that gas could be utilized successfully and as cheaply as the fuel in use. The next step was to build an appliance that, in addition to being mechanically efficient, must operate at a nominal expense. By continually visiting this party and working on this problem we eventually developed a gas fired appliance that not only satisfied the consumer, but delivered greater efficiency and will ultimately develop into a fine gas installation.

After the first installation of this kind you will find that it is an easy matter to sell to similar concerns, as the most convincing argument is an installation already working successfully.

The above experience exemplifies the old adage, "Time, patience and perseverance can accomplish all things."

F. H. PELLE.





## Running Trains

WITH RUNNING WATER

Modern transportation depends upon a continuous supply of cheap motive power. Economically, hydro-electricity as a power is replacing fuels in California and we may fairly anticipate electrification of our entire transportation system.

To investors in California hydro-electric companies this will mean material strengthening of their investments, because a vast new market becomes available. Hydro-electric production is a fundamentally essential business.

Send today for "California Hydro-Electric Securities" and "Investment Opportunities of Today" — two books every investor should have.

## BLYTH, WITTER & Co.

Merchants Exchange

San Francisco

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# — “DE LUXE” AUTOMATIC WATER HEATER

WITH WHITE INSULATING JACKET

*Ornamental, Perfect in Operation  
Durable and Economical*

The latest product of pioneers in the  
Water Heater business  
Sizes to meet the smallest to the largest  
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MANUFACTURED BY THE  
**Bastian Combination Water Heater Co.**  
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*Invites you to use its fully  
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**Time Deposit Department**—Paying 4% compound interest on your savings.

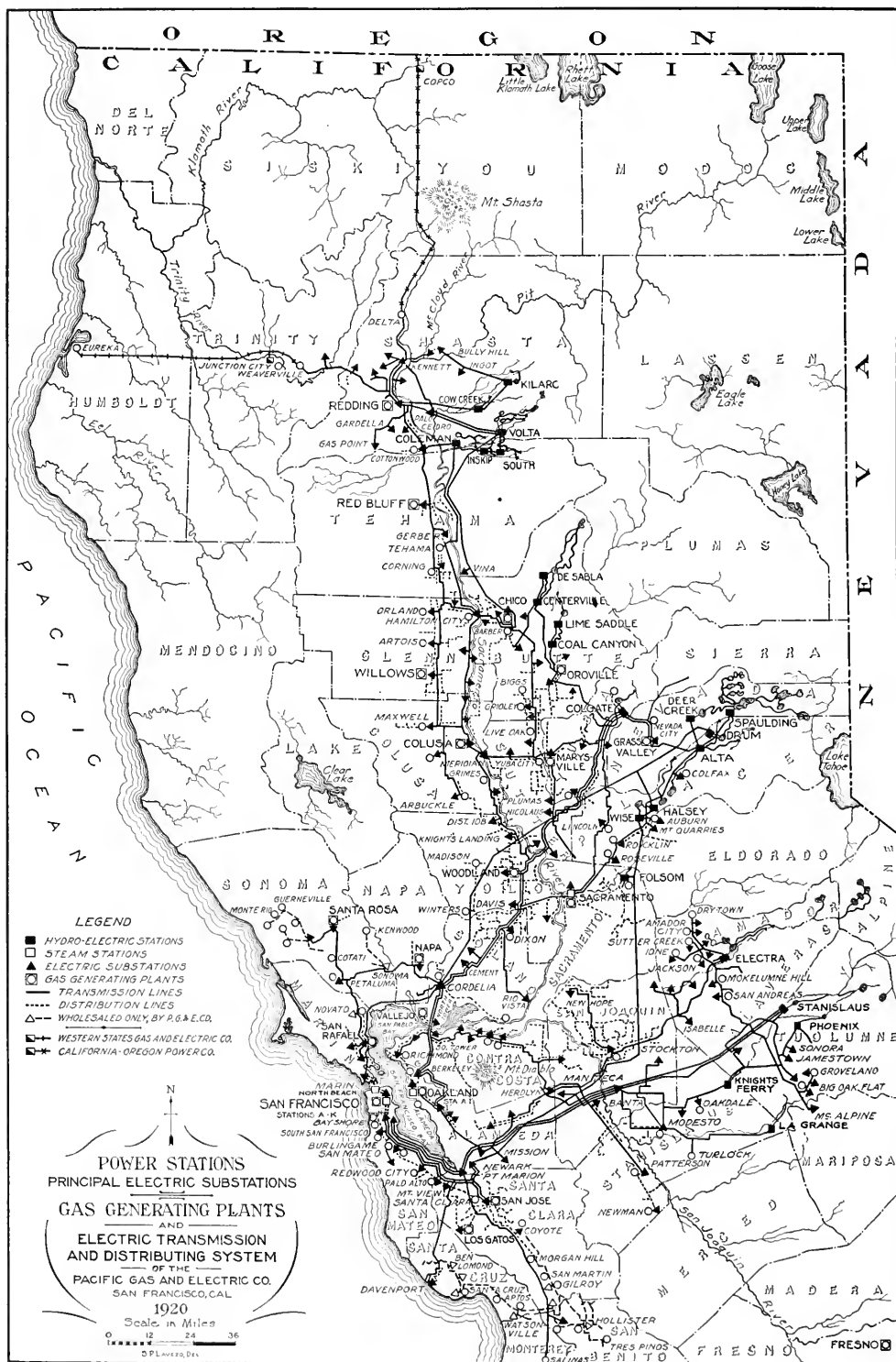
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# Pacific Gas and Electric Company Furnishes

## "PACIFIC SERVICE"

TO OVER 566,617 CONSUMERS OF

## GAS • ELECTRICITY • WATER • STREET RAILWAY

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>1</sup> El Verano.....	400	Milpitas.....	350	<sup>1</sup> San Pablo.....	500
<sup>2</sup> Albany.....	2,300	<sup>2</sup> Emeryville.....	3,000	Mission San Jose	500	<sup>2</sup> San Quentin.....	2,500
Alvarado.....	700	Escalon.....	500	Modesto.....	14,000	<sup>2</sup> San Rafael.....	6,000
Alviso.....	550	Esparto.....	250	Mountain Hill	300	<sup>2</sup> Santa Clara.....	6,000
<sup>1,2</sup> Amador City.....	1,100	Fairfax.....	250	<sup>2</sup> Monterey.....	6,500	<sup>2</sup> Santa Cruz.....	13,600
Anderson.....	800	Fairfield.....	1,000	<sup>2</sup> Morgan Hill.....	750	<sup>2</sup> Santa Rosa.....	11,000
Angel Island.....	280	Fair Oaks.....	300	Mountain View	2,500	Saratoga.....	300
Antioch.....	2,000	Fall River Mills	500	Mt. Eden.....	210	Sausalito.....	3,000
<sup>2</sup> Aptos.....	300	Farmington.....	400	<sup>2</sup> Napa.....	6,500	Sebastopol.....	1,950
Arbuckle.....	700	Felton.....	2,000	<sup>2</sup> Nevada City.....	2,900	Shasta.....	500
<sup>2</sup> Atcherson.....	250	Folsom.....	2,000	Newark.....	505	<sup>2</sup> Shellville.....	200
<sup>1,2</sup> Auburn.....	2,800	<sup>2</sup> Forestville.....	225	<sup>2</sup> Newcastle.....	950	Sheridan.....	250
<sup>2</sup> Barber.....	500	<sup>2</sup> Fresno.....	48,867	Newman.....	1,200	Smartsville.....	300
<sup>2</sup> Belmont.....	375	<sup>2</sup> Gilroy.....	2,900	Niles.....	1,000	<sup>2</sup> Soledad.....	600
Belvedere.....	550	<sup>2</sup> Glen Ellen.....	900	<sup>2</sup> Novato.....	400	Soquel.....	400
Benicia.....	2,400	<sup>2</sup> Gonzales.....	650	<sup>2</sup> Oakdale.....	2,100	<sup>2</sup> Sonoma.....	1,290
<sup>2</sup> Ben Lomond.....	800	<sup>2</sup> Grass Valley.....	5,200	<sup>2</sup> Oakland.....	225,000	<sup>1,2</sup> Sonora.....	3,000
<sup>2</sup> Berkeley.....	65,000	<sup>2</sup> Gridley.....	1,800	Oakley.....	200	<sup>2</sup> South San Francisco.....	3,750
<sup>2</sup> Biggs.....	500	Grimes.....	350	<sup>2</sup> Occidental.....	600	Standard.....	300
Bolinas.....	200	<sup>2</sup> Groveland.....	250	Orland.....	836	<sup>2</sup> Stanford University.....	2,600
Brentwood.....	500	<sup>2</sup> Guerneville.....	780	<sup>2</sup> Oroville.....	5,000	<sup>1,2</sup> Stockton.....	42,000
Broderick.....	600	Hamilton City	500	<sup>2</sup> Pacheco.....	250	Suisun.....	800
<sup>2</sup> Burlingame.....	4,000	Hammononton.....	200	<sup>2</sup> Pacific Grove.....	2,900	Sunol.....	340
Byron.....	450	<sup>2</sup> Hayward.....	4,000	<sup>2,3</sup> Palo Alto.....	6,000	Sunnyvale.....	1,650
Campbell.....	700	<sup>2</sup> Hillsborough.....	950	Paradise.....	500	Sutter City.....	250
<sup>2</sup> Capitola.....	275	<sup>2</sup> Hollister.....	2,500	<sup>2</sup> Patterson.....	500	<sup>2</sup> Tehama City.....	221
<sup>2</sup> Carmel.....	600	<sup>2</sup> Jone.....	1,000	<sup>2</sup> Penn Grove.....	300	Tiburon.....	350
Cement.....	1,000	<sup>2</sup> Irvington.....	800	<sup>2</sup> Perkins.....	250	Tracy.....	2,000
Centerville.....	850	<sup>2</sup> Jackson.....	2,100	<sup>2</sup> Petaluma.....	7,500	<sup>2</sup> Tres Pinos.....	300
Ceres.....	250	<sup>2</sup> Jamestown.....	600	<sup>2</sup> Piedmont.....	3,500	<sup>2</sup> Tuolumne.....	1,000
<sup>2</sup> Chico.....	15,000	<sup>2</sup> Kennett.....	1,200	<sup>2</sup> Pike City.....	200	<sup>2</sup> Turlock.....	4,500
<sup>2</sup> Colfax.....	500	<sup>2</sup> Kentfield.....	500	<sup>2</sup> Pinole.....	1,800	<sup>2</sup> Vacaville.....	1,250
College City.....	325	<sup>2</sup> Kenwood.....	200	<sup>2</sup> Pittsburg.....	6,000	<sup>2</sup> Vallejo.....	15,500
<sup>2</sup> Colma.....	1,800	<sup>2</sup> Keswick.....	1,800	<sup>2</sup> Pleasanton.....	1,500	Vina.....	300
<sup>2</sup> Columbia.....	250	<sup>2</sup> King City.....	1,500	<sup>2</sup> Port Costa.....	1,000	<sup>2</sup> Vineburg.....	200
<sup>2</sup> Colusa.....	2,000	<sup>2</sup> Knights Land- ing.....	400	<sup>2</sup> Princeton.....	300	Walnut Creek.....	500
Concord.....	850	<sup>2</sup> La Grange.....	260	<sup>2</sup> Red Bluff.....	3,530	Warm Springs.....	200
Coram.....	666	<sup>2</sup> Larkspur.....	2,000	<sup>2</sup> Redwood City.....	4,200	Waterford.....	6,000
Cordelia.....	300	<sup>2</sup> Lexington.....	200	<sup>2</sup> Richmond.....	16,500	Watsonville.....	500
Corning.....	972	<sup>2</sup> Lincoln.....	1,500	Rio Vista.....	1,000	Wheatland.....	625
Corte Madera.....	350	<sup>2</sup> Live Oak.....	300	Ripon.....	300	Williams.....	1,139
<sup>1,2</sup> Cotati.....	200	<sup>2</sup> Livermore.....	2,500	Riverbank.....	400	Winters.....	1,200
Cottonwood.....	400	<sup>2</sup> Lomita Park.....	450	<sup>2</sup> Rocklin.....	900	<sup>2</sup> Woodland.....	5,000
Coyote.....	200	<sup>2</sup> Loomis.....	450	<sup>2</sup> Rodeo.....	4,200	Woodside.....	225
Crockett.....	3,000	<sup>2</sup> Los Altos.....	500	<sup>2</sup> Roseville.....	900	<sup>2</sup> Yolo.....	350
Crow's Landing	300	<sup>2</sup> Los Gatos.....	3,000	<sup>2</sup> Sacramento.....	76,000	<sup>2</sup> Yuba City.....	1,750
<sup>2</sup> Daly City.....	5,500	<sup>2</sup> Los Molinos.....	200	<sup>2</sup> Salinas.....	5,500	Total Cities and Towns.....	1,494,598
Danville.....	400	<sup>2</sup> Madison.....	250	<sup>2</sup> San Andreas.....	750	Add Suburban Population.....	414,687
Davenport.....	300	<sup>2</sup> Manteca.....	2,500	<sup>2</sup> San Anselmo.....	3,000	Total Population Served.....	1,909,285
Davis.....	1,700	<sup>2</sup> Mare Island.....	500	<sup>2</sup> San Bruno.....	1,500		
Decoto.....	300	<sup>2</sup> Martinez.....	3,500	<sup>2</sup> San Francisco.....	580,000		
<sup>2</sup> Del Monte.....	300	<sup>2</sup> Maxwell.....	480	<sup>2</sup> San Jose.....	45,000		
Denair.....	200	<sup>2</sup> Mayfield.....	1,100	<sup>2</sup> San Juan.....	550		
<sup>2</sup> Dixon.....	1,200	<sup>2</sup> Meridian.....	225	<sup>2</sup> San Leandro.....	5,000		
<sup>2</sup> Drytown.....	225	<sup>2</sup> Millbrae.....	300	<sup>2</sup> San Lorenzo.....	400		
<sup>2</sup> Duncan's Mills	200	<sup>2</sup> Mill Valley.....	3,200	<sup>2</sup> San Martin.....	200		
<sup>2</sup> Durham.....	300			<sup>2</sup> San Mateo.....	6,000		
<sup>1,2</sup> Dutch Flat.....	750						
<sup>2</sup> Eldridge.....	500						
<sup>2</sup> El Cerrito.....	1,200						
Elmira.....	350						

Unmarked—Electricity only. <sup>1</sup>—Gas, Electricity and Water. <sup>2</sup>—Electricity supplied through other companies.  
<sup>1</sup>—Gas only. <sup>3</sup>—Gas, Elect. and St. Railways. <sup>3</sup>—Gas supplied through other companies.  
<sup>2</sup>—Gas and Electricity. <sup>4</sup>—Electricity and Water. <sup>4</sup>—Water supplied through other companies.

### "PACIFIC SERVICE" FACTS:

Number of Electric Consumers..... 264,589  
 Number of Gas Consumers..... 285,395  
 Number of Water Consumers..... 16,190  
 Number of Steam Consumers..... 443

Total number of consumers..... 566,617

Operates 25 Hydro-Electric Power Plants.

Operates 4 Steam-Electric Power Plants.

Operates 20 Gas Plants.

New Issue

\$10,000,000

# Pacific Gas & Electric Company

First and Refunding Mortgage Gold Bonds

Twenty-Year 7% Series "A"

Due December 1, 1940

Obtainable in denominations of \$500 and \$1000

Exempt from personal property tax in California

Application has been filed with the Superintendent of Banks  
to certify these bonds as a legal investment for  
California Savings Banks

The Pacific Gas & Electric Co., in addition to the 24 hydro-electric generating plants which it now operates, with an aggregate installed capacity of 271,500 h. p., controls, through the Mount Shasta Power Corporation, undeveloped water powers on the Pit River and its tributaries, comprising one of the most promising hydro-electric power projects on the Pacific Coast, with an ultimate development of over 420,000 continuous h. p., of which the initial development of 126,500 h. p. is now under construction, together with a steel tower transmission line of 250 miles to San Francisco Bay.

These bonds, in the opinion of counsel, will be secured by a first mortgage on the Pit River developments and transmission line, and by a mortgage on the entire properties

of the Pacific Gas & Electric Co., subject to prior liens of underlying mortgages. The mortgage, in addition to providing strong sinking and maintenance funds, also provides that additional First and Refunding mortgage bonds may only be issued under conservative restrictions.

Net earnings for each of the past 4 years were over twice all interest charges and for the year ended November 30, 1920, over 1.95 times the interest on all outstanding bonds, including this issue.

From January 1, 1906, to December 31, 1919, \$37,190,000 of net earnings were invested in the business.

Within the past 6½ years over \$23,000,000 of the Company's Preferred Stock has been sold for cash, largely to its own customers, and the proceeds invested in the business.

We recommend these bonds for investment

Price 99 and accrued interest, yielding about 7.10%

Bonds offered if, as, and when issued, and received by us, subject to all necessary legal proceedings as to authorization and approval.



Circular giving details of this issue will be sent upon request for PG 131.

## The National City Company

National City Bank Building, New York

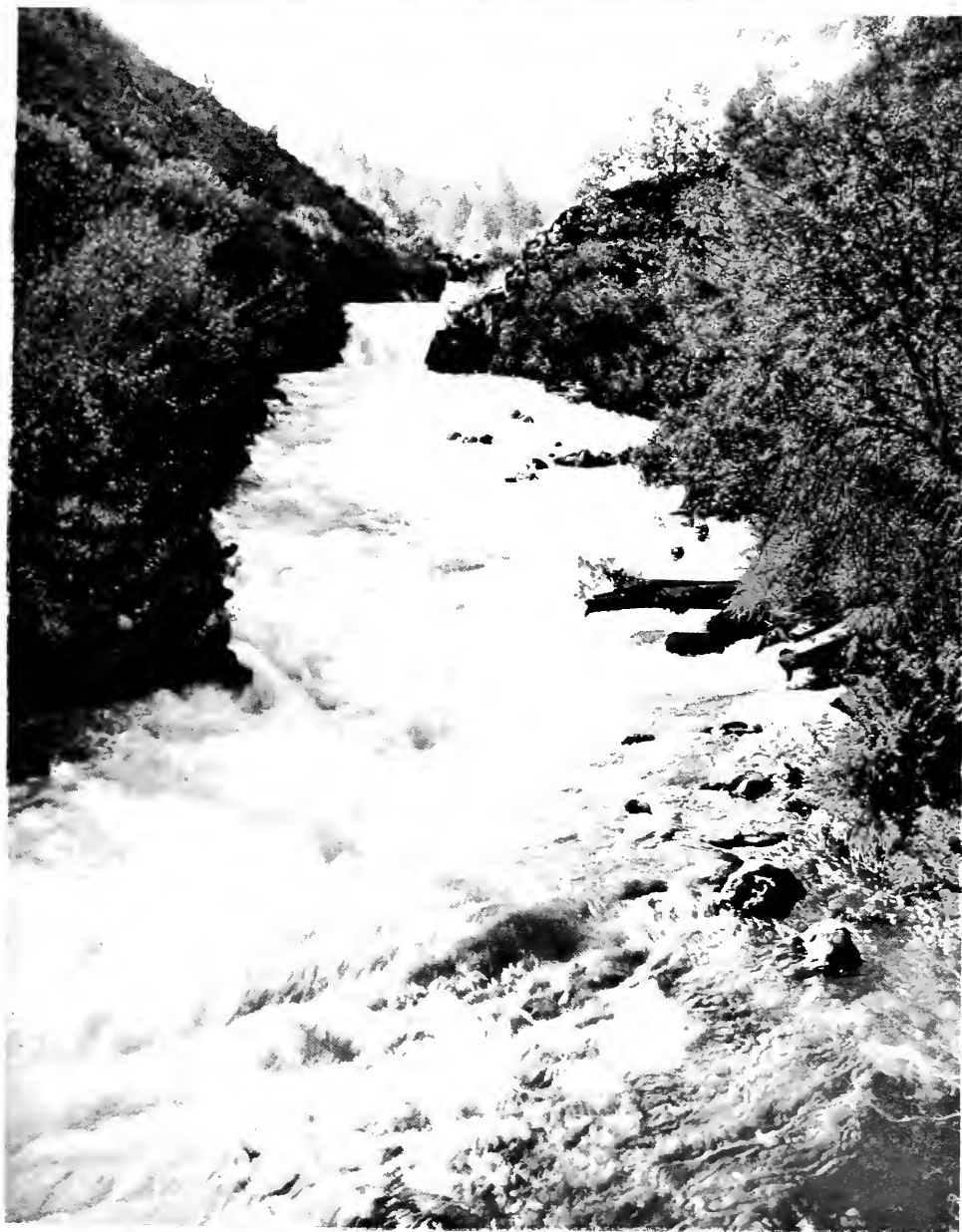
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# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



HAT CREEK FALLS BELOW CRYSTAL LAKE RANCH

Vol.  
12

FEBRUARY 1921

No.  
9



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# Pacific Service Magazine

Volume XII



Number 9

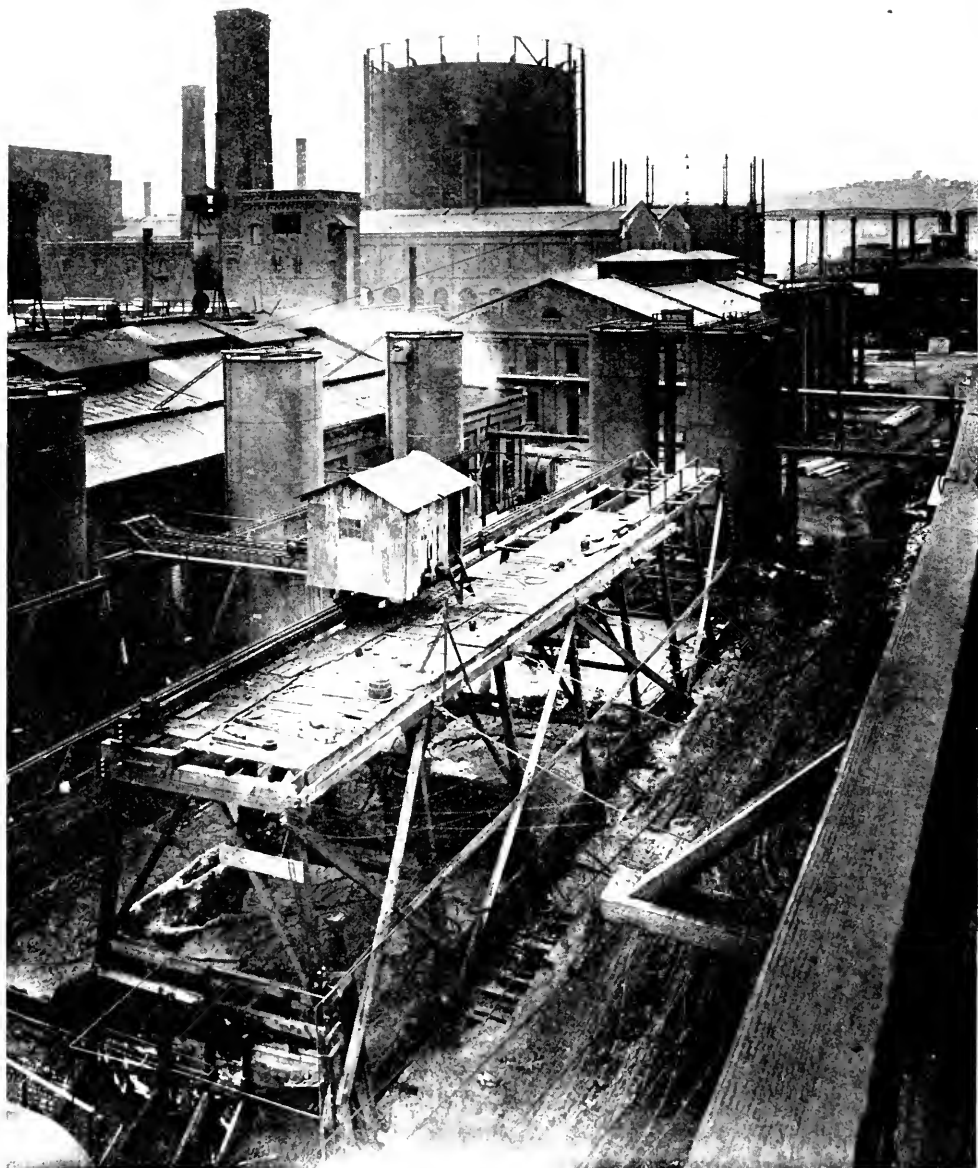
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"Pacific Service" gas works at the Potrero, San Francisco. From this and the Metropolitan plant, on the North Beach shore of the bay, city gas is supplied to 135,000 consumers in the Western Metropolis for domestic and industrial purposes. The capacity of the Potrero Works alone exceeds 25,000,000 cubic feet a day.

## *Our New Industrial Gas Laboratory in San Francisco*

By H. M. Crawford, Commercial Department

**I**N RECENT years the use of gas for heating and industrial purposes has become general. The great war brought about the necessity for greatly increased production in factories, and those in charge of industries turned to gas for emergency fuel to speed up the work.

Gas rivet-heating was adopted by most of the big shipyards of the country, and after a trial many efficiency engineers were astounded to find that the net cost of operation with gas as a fuel was actually less than with coal, coke or oil. The result of this discovery was that gas was given an opportunity to prove its worth in industry and has now become firmly

established as the most efficient and economic fuel.

While gas has had an opportunity to demonstrate its value in the large shipyards and corporations, some thousands of small factories and shops have yet to be convinced that gas is better and cheaper in the long run than any other fuel which they might employ; hence the necessity for the gas industry to demonstrate the uses to which gas may be put and the excellent results to be obtained therefrom. To this end the Pacific Gas and Electric Company has opened a modern gas laboratory and demonstration plant at 241 Stevenson Street, San Fran-



Interior of the "Pacific Service" Industrial Gas Laboratory in San Francisco, seen from the end near the entrance on Stevenson St.

cisco. The building is of the factory type and contains a floor area of 8400 square feet. It has been equipped with almost every type of modern gas appliance which might be used in industry, and it is the idea of the company to have its industrial engineers demonstrate this equipment to its consumers in order to prove the value of gas as a fuel.

The problem of the industrial engineer is a peculiar one, in that his recommendations usually involve a considerable expenditure for new equipment in order to

volume of business. The industrial gas engineers, therefore, work under positive instructions to give the consumer in every case the best possible advice for the consumer's interest.

In making recommendations it is sometimes essential that the proposed method of utilizing gas be well demonstrated in order to effect a sale which involves a considerable expenditure on the part of the customer. The laboratory as it is constituted answers every requirement in this particular. The industries of the



Interior of the Industrial Gas Laboratory looking toward the entrance.

utilize gas efficiently. It is generally the case that oil or coal burning equipment in use cannot be converted to the use of gas fuel with the degree of efficiency the company likes to see effected. It goes without saying that the gas industry is anxious to accomplish a given amount of work with the least expenditure possible on the part of its consumers. It is modern business policy to give the greatest possible value for each dollar received, resulting in a host of satisfied customers and, in the long run, a greatly increased

Pacific Coast have now an opportunity to bring their problems to the Gas Company with the certainty that they will receive accurate and scientific information. It is quite feasible for a manufacturer to bring in samples of steel to be treated and have the work done under his personal observation in a gas-fired furnace, and a complete report obtained as to the quality of work produced and the cost of doing it. This is something which has heretofore been impossible, due to the lack of proper facilities, and something which



Battery of gas fired steam boilers.

hoods and connected ready for operation. An 18-36 griddle is also connected at end of ranges; a steam table is set in place in front of the battery and under-fired with the usual gas burners. This type of range is in use by the largest hotels on the Pacific Coast and many prominent Eastern hostleries.

we believe will be of great value to industries on the Pacific Coast. It is, in effect, an up-to-date example of "Pacific Service."

To those who might be interested it may be of value to review in a general way the type of equipment available in this laboratory.

The hotel and restaurant section is intended to demonstrate the principal types of ranges in general use. It cannot include every range used, nor does it aim to cover the field fully; this is also true of all other appliances in the laboratory; however, such appliances as are shown are well up in the lead in their respective fields and can be recommended for effective service.

The first installation consists of the Garland hotel equipment. The battery consists of one 95-26 range, one 45-26 and one 47-26 range. All of these are covered with standard ventilated

The next set consists of the "Lange" end-fired French range described as No. 2-24-82, with high shelf. This type of range is in use at the famous "Poodle Dog" cafe in San Francisco, and there are many other similar installations. The unit is supplemented by the large Roberts portable bake-oven. The steam table with these ranges is equipped with steam coils in box, and with coils in serving shelf; a unique feature, as plates are kept warm after the Chef has served



Demonstrating a gas fired furnace in the laboratory for a consumer.



Large heating furnace in the foreground. Hotel ranges in the background.

them until taken away by the waiter. Steam is supplied by Bryant gas-fired boiler and returned through a trap to an open receiver near the boiler, where a float switch actuates a small electric pump. When the receiver fills up, it automatically starts the pump and returns the condensation to the boiler. The installation needs practically no attention.

The next hotel battery is manufactured in San Francisco by John G. IIs and consists of a standard 6½-foot brick set French range with a No. 3 Portable gas bake-oven. This type of equipment is popular for its extreme durability due to its substantial construction. The "Pig 'n' Whistle" cafes have adopted this equipment as standard, and they operate some of the most complete and modern institutions of their kind.

The small range at the end serves the short order cafe, and is an Eclipse No. 25-82, and 25-40. These small ranges, while not so spectacular as the large hotel type, are the "backbone" of many a gas company's industrial load, producing usually a steady revenue exceeding in total some of the larger installations.

Near the hotel section is the candy makers' equipment, ready for operation.

With "Improved Appliances" Nos. 330 and 331, respectively, atmospheric and blast burners, work can be done quickly and surely. Recently, the sales of this type of furnace have greatly increased.

The next appliance is the bake-oven burner, mounted on a post for demonstration and

equipped with fan and motor which furnish the air at three ounces pressure to the burner. All of us have seen the old brick Dutch oven, which was filled with burning wood, and, later, the ashes raked out and baking done with the stored heat in the mass of masonry. There are many similar brick ovens in operation in every town for commercial baking, using wood or oil for fuel. The bake-oven burner is built to burn gas in this type of oven. The burner is mounted at the side of the oven door and the brass swivels permit it to swing at any angle; thus the flame can be directed at the right side of the oven for 15 minutes, leaving the left damper open, then another 15 minutes on to the opposite side, changing the dampers accordingly to make the flame travel around the oven. Usually an hour and a quarter will heat the average oven, burning 900 feet of manufactured gas.

The ordinary small bakery will have a gas bill of \$40.00 per month and most of them are entirely satisfied after using the burner, but it is hard to get them away from the old fuels, especially as it is necessary to tell them in advance that the gas will cost them \$10.00 or \$15.00 a month more. However, the baker who

has tried both fuels would never go back to wood again. The cleanliness of gas, the convenience, and time saving, more than offset the added fuel cost. Last year in San Francisco 30 burners were installed, bringing a new revenue amounting to \$15,000 a year.

The next display is the "Dry Room," size about 8x12 ft., and lined with sheet metal. This room is heated by hot pipes through which gas is fired from an ordinary Johnson burner. The pipes are vented and dripped and no moisture enters the room. Air is admitted around the pipes and exhausted by a fan. It is surprising how many applications of a dry room can be found in any town. Near the dry room is the experimental corner, where a work bench, tools, testing meters and other necessary instruments are provided.

The next section is "Heating," which includes factory and office buildings. A separate display is maintained elsewhere by the company for residential heating. The first appliance is the "Hall" furnace, a battery of these burning 1000 feet of gas per hour, being driven with a No. 5 ventilating fan, and a 3-horsepower motor. These furnaces supply 5000 cubic feet of hot air per minute, or nearly a third of a million cubic feet an hour. Furnaces of this type are ideal for heating large open spaces where steam or radiator equipment would be prohibitive in first cost. Metal work is installed to suit the individual requirements for delivery of air, and on account of the diversity in piping methods the demonstration furnaces show only furnaces without complete distribution system.

The heating of buildings with steam has opened up a new field for the gas man and, while some localities have employed gas-fired boilers for many years, yet, as a general proposition, the plan is still somewhat new. Many architects and engineers, accustomed to steam for all general work, are reluctant to attempt heating in any other form. The gas man, therefore, has had his difficulties in urging the use of gas for heating with individually fired radiators, etc. A number of good types of boilers are available for steam heating, but the "Bryant" is generally in use now on the Pacific Coast where manufactured gas is sold. Steam is considered preferable on account of the mild climatic conditions, necessitating a system of some flexibility, there being times during the day when only an hour or two of heating is required.

The laboratory has a No. 18 Bryant steam boiler installed complete with radiators in offices above boiler, and the entire system is covered with asbestos insulation, and in working order subject to observation and test by prospective users.



Industrial engineer demonstrating rivet-heating with gas furnace.



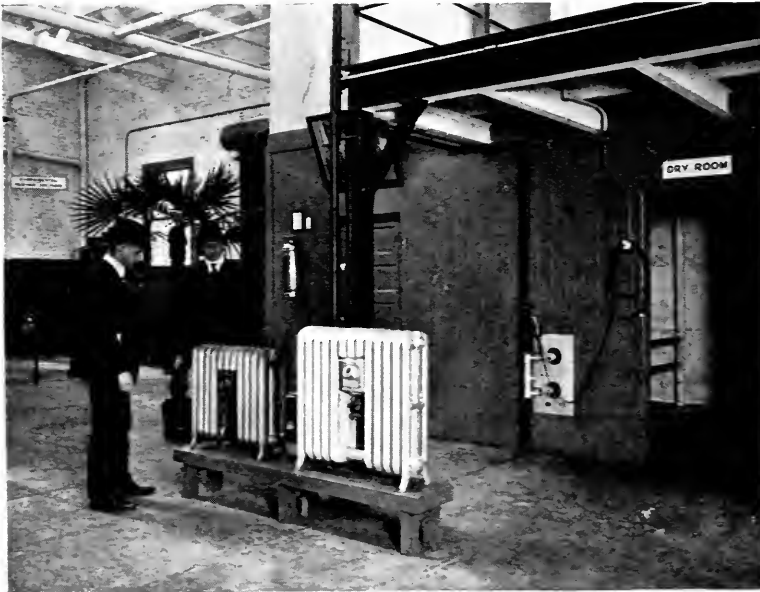
The Minneapolis heat control is applied to this and regulates the fuel to the boiler in accordance with heating requirements.

A No. 66 Bryant is also set up for display. This year many systems of this kind have been completed, including a number of bank buildings, stores, residences, etc. The largest installation in process of construction is the Southern Pacific Railroad building on Channel Street, San Francisco, which will be occupied by four large wholesale grocery concerns. This building is about 1000 feet

must be sold. All of which emphasizes the necessity of a laboratory where tests can be conducted and the skeptical won over by actual demonstration.

The next heating display is the Rector system, known for its efficiency of operation and ideal for installations where unit heating is required and economy is a factor. Some large factories have been equipped with this system, the American Can Company being a notable example.

The next display is of high-pressure boilers. This exhibit consists of a battery of Kane boilers, one 10-horsepower, one 8-horsepower and one 5-horsepower, interconnected so that any one may be used. A small 4-horsepower McKee boiler completes the battery. All steam lines and return lines are intervalved so that any desired operation can be effected. These boilers supply steam to the dry room and to a



Rector Radiators for house-heating. Dry-room in the background

in length and will be heated entirely by Bryant gas-fired steam boilers. The boilers for this job will weigh more than 10 tons, being 100 sections long, and the gas consumption is estimated at \$700 a month. Credit for this unusual heating goes to Mr. H. L. Eckenroth, assistant heating engineer, Pacific Gas and Electric Company. Incidentally gas won out over coal-fired boilers. Negotiations for this work extended over a period of four months, with engineers, architects, owners and individual tenants to be convinced. It is apparent that business worth while will not come to the gas company: the idea

500-gallon wooden tank with partition in center. One side of the tank has a coil and the other side an open jet. A 26-inch steam-jacketed kettle is also connected. Condensation from these appliances is returned by a steam trap to a receiver tank from which it is automatically pumped back to the boilers by a small reciprocating steam pump made by the Simons Machinery Company. All appliances are operated through a 150-A master meter, and each section, in addition, is again metered through Sprague iron meters. Portable recording meters are also provided for testing purposes.

This brings us to the laboratory instruments, which really need no description except to say, in general, that a standard calorimeter, optical pyrometer, various types thermo couples, Orsat set, thermometers, etc., are provided.

The metal treating section is the most complete of any department, it being the theory that in a growing industrial section this branch of our business should be specially encouraged. It has been the case, at least on the Pacific Coast, that the heat treatment of metals with gas has not received the attention it deserves, and as a consequence that branch shows the least growth. This was determined accurately by an industrial survey of all territory served and an analysis made of all industrial consumers. Practically 20 per cent of the gas output in the bay district of San Francisco is sold for industrial purposes. Of this amount the large hotels

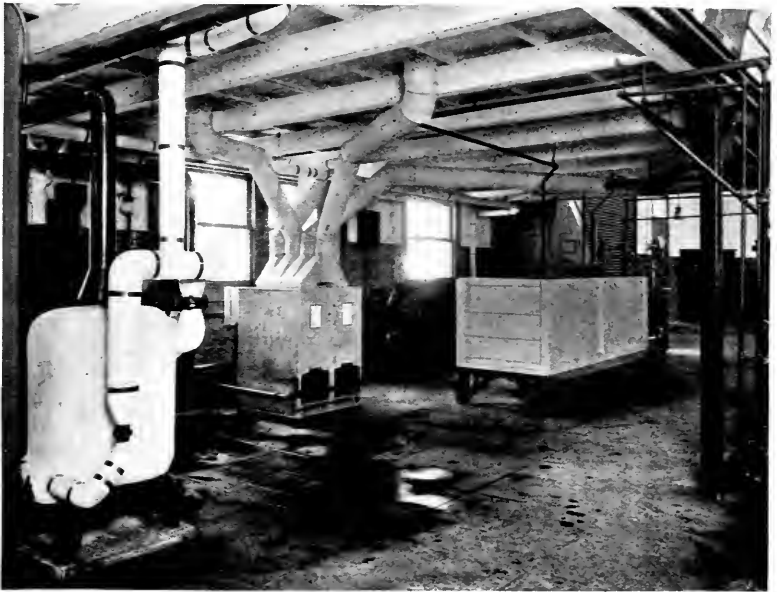
and restaurants utilize more than one-third. Ship-building uses 7 per cent, candy making 5 per cent, printing 5 per cent, coffee roasting 4 per cent, automobile shops  $3\frac{1}{2}$  per cent, and other industries in proportion. It results that the metal treating end of the industrial load is not so important as it should be, hence the effort to concentrate on that branch.

The metal treatment department has a complete line of furnaces and equipment for any work which ordinarily could be

done with gas. There are 30 different furnaces for this work connected and ready for operation. The largest of these is a Tate-Jones series A, 12x18, weighing a little over two tons.

A careful record is kept at the laboratory of all demonstrations and tests for customers. These are later checked with sales and it has already been proven that enough business has been secured to justify the investment.

The successful completion of this laboratory was a tribute to the co-operative spirit of men in the gas industry, as there



Gas fired steam boiler and hot-air furnaces for house-heating.

will be approximately \$20,000 worth of gas equipment in operation, most of which was consigned by the manufacturers.

When it is realized that more than a million dollars was expended in 1920 by our consumers in the bay districts for industrial gas it will be realized that the use of this commodity has become a permanent factor in the business. To those intimately in touch with the industrial situation it is plain that only a beginning has been made.

## *Pacific Coast Gas Association Opens Season of 1921*

By W. M. HENDERSON, Secretary of the Association.

The Pacific Coast Gas Association on February 12th held its first get-together dinner of the season. It was held amid surroundings that were strictly a gas man's atmosphere, for it was prepared and served at the new Industrial Gas display rooms of "Pacific Service" in San Francisco. That was not the only novel feature for the program of entertainment was entirely in harmony with the surroundings.

Under the circumstances and in view of the unique character of the program announced to the membership, the inducements were sufficient to bring forth a great gathering. In fact, it was as large an assembly of gas men as the Pacific Coast Gas Association has ever entertained. Dinner was set for 6:30 p. m., but by 5 o'clock the guests were putting in an appearance. This was well for it gave them a chance to look over the exhibit. Provision was made for early arrivals by having present capable representatives of the various appliances to explain their operation, demonstrate their use and answer questions. The hotel equipment, consisting of six sections of ranges of different makes and steam tables operated by a low-pressure boiler, was all in useful service preparing the dinner. This sight created unusual interest, particularly the large bake ovens where hot biscuits and individual pies were in the making. The responsibility for this feature of the dinner had been assumed by Mrs. D. R. Withers, domestic demonstrator of the local gas company, and one of the two women members of the Pacific Coast Gas Association.

When the dinner bell rang at the appointed time there were present, willing and able to do justice to the repast, over 180 members and their guests. The whole coast, Washington, Oregon, Nevada and California was represented. When one remembers that the West is a country of magnificent distances the promoters of the feast can feel proud of their efforts. Some of the pilgrims arriving from the Northwest traveled over 800 miles. Mr. Charles H. Dickey of the American Meter Company heard the call and put 3,000

miles behind him in order to be amongst those present. A large delegation headed by A. B. Day of Los Angeles came out of Southern California. This alone is a testimonial for the producers of the event.

William Kapus, from Portland, Oregon, as president of the Pacific Coast Gas Association, gave the gathering his blessing. When the feasting was over and the small blacks and cigars were in order, President Kapus again gave his attention to the contented and well-filled multitude. In his remarks he dwelt on the organization of the association, as now constructed, for useful and beneficial work on behalf of the industry. The new committee plan was sketched in detail and the activities of these committees were, for the first time, laid before the members of the association. Hereafter the annual meeting business program will be put on by reports and papers prepared under committee supervision. These consist of technical, commercial and accounting sections, each with a major chairman and sub-divided into staffs with sub-chairmen and members preparing and investigating various phases of their department. In this way the association is actively engaged with a great many of its members working the year round on constructive investigation. The annual convention this year will have something of real value to offer the gas industry. President Kapus can be thanked for the energetic way in which he is putting over the idea.

Following his reports, the president offered the secretary, W. M. Henderson, an opportunity to present himself and unload some of the numerous communications and regrets from absent members. Among the returns was a wire from President Munroe of the American Gas Association who, like a few others of our Eastern brothers, was with us in spirit if not in person.

Next, Mr. W. E. Creed, president of the Pacific Gas and Electric Company, was introduced. He did not treat the guests present to any of the usual banquet oratory of glowing tributes to the past,

present and future of our industry and its men. Mr. Creed had a message and he connected with it immediately on stepping to the center. The text of his message dealt with the California Legislature's attempt to adjust its taxation to fit its budget of expenditures.

Mr. Creed presented this tax question to his listeners and took them behind the scenes so that they might behold the whole shameful spectacle of milking the corporations in the approved political style.

Mr. Kapus next presented the past secretary and present vice president, Mr. Henry Bostwick. Henry is a past master on the subject of service. It is a good subject and its exponent is sincere. On this occasion the topic was, as usual, well put. Mr. Bostwick dwelt with the service that was to be rendered the gas industry by the establishing of an industrial laboratory and gas equipment display rooms which were this evening serving such an enjoyable purpose.

With these preliminaries out of the way the president brought on the real "piece de resistance" of the evening program. It consisted of stunts put on by the boys who carry the message and glad tidings to "prospects" that there is eternal happiness to all who heed the words, "do it by gas." A program was prepared by Mr. Frank Talcott, sales manager of the Gas Company in San Francisco, which consisted of actual demonstrations accompanied by descriptive talks on the various types of equipment on exhibition. Mr. C. B. Babcock, the pre-eminent orator of the Pacific Coast Gas Association, acted as master of ceremonies and presented:

Mr. Robert Godfrey, whose act was entitled, "Gas for bakeries, demonstrating bake oven burners, hotel ranges and steam tables."

Mr. D. McCorkle and Mr. Frank Maloney, who presented "Factory and House Heating made possible by Hall Unit Furnaces."

Mr. F. Mosher and Mr. H. Eckenroth, who doubled up to properly put before the assembly, "The Merits and Virtues of the Bryant Steam Boiler."

Mr. L. F. Galbraith, who exploded any doubts or mysteries that might still linger in the mind as to the practical success of the Rector System of Gas Heating.

Mr. A. Ross, who, as champion of the Kane boiler, introduced this efficient appliance to the admiration of all present.

Mr. E. M. Levy, who showed the value and necessity of the Taylor instruments for temperature control in metal treating.

As a grand finale Mr. Fred Pelle, ably assisted, put on a spectacular and interesting demonstration. A stage had been prepared and on it were assembled the various types of metal-treating furnaces. Rivet heating with gas was first illustrated. Cutting, with high pressure gas and oxygen, steel plate and heavy steel bars; opening the eyes and satisfying the pride of the gas men present, that gas had its place in the metal industry. Mr. Pelle demonstrated the fact that steel bars can be readily welded on the anvil after a heat taken in a gas-fired forge.

After such an entertainment and display of the general utility of their product, the gas men present, with pride in their calling, courage and confidence in the future, dispersed with the knowledge that:

"Great conquerors greater glory gain  
By foes in triumph led than slain;  
The laurels that adorn their brows  
Are pulled from living, not dead, boughs."



# How Public Service Rates Are Fixed

By W. E. Creed.

*The following is the first of a series of short papers by our company's president on matters vital to the public service, particularly the problems in whose satisfactory solution the public service corporations and the public they serve are mutually concerned.—EDITOR PACIFIC SERVICE MAGAZINE.*

Public service rates are fixed by economic conditions,—not by public authority. Any attempt to ignore this plain truth would be as futile as the command of King Canute's courtiers to the waves. In fixing rates, the commissioners of regulation can do no more than ascertain and interpret the economic factors, which control them and the rates as well.

Public service companies must receive from rates (1) the actual cost of their operation; (2) the amount of their taxes and depreciation, and (3) a fair return upon the actual value of their property, used in the public service. The ordinary procedure in a rate hearing is, to identify and determine the value of this property. The next step is to determine the annual operating costs. These costs include (a) the money paid for wages and salaries of the forces employed by the company, (b) the money paid for materials and supplies used in the business, such as oil for fuel and lubrication, and other supplies and materials used in operating, and (c) the amount expended for maintenance of the property, which includes such items as repairs to machinery, transmission and distribution lines, and the like. The regulatory body examines the operating costs very carefully and determines on the basis of actual facts and experience what the cash outlay must be to meet the operating costs. To the operating costs must of course be added the actual cost of insurance against fire, accidents, and other risks, and also the very important item of taxes. The costs of operation, insurance and taxes are capable of ascertainment and are plain facts from which there is no escape. Thus, an increase in taxes increases the amount of money which the company must take out of its receipts and pay over to the State or the municipality, and increases the amount of money which it must receive from rates.

After annual operating costs, insurance and taxes are determined, the rate

fixing commission must ascertain the annual cost of depreciation. By depreciation is meant the annual loss in the value of physical plant due to physical deterioration or obsolescence. Depreciation is just as much a cost as wages. What it is may be made very clear by taking a simple example.

If a public service company lays a pipe in the ground which costs a thousand dollars, and this pipe will wear out after twenty years of service, then at the end of twenty years, the thousand dollars which was invested in the pipe will be entirely lost unless there is some provision made for accumulating in some way a second thousand dollars to buy the second pipe to replace the first pipe. The mere payment of interest on the thousand dollars invested in the pipe will not do this, because the company must itself pay the interest on the first one thousand dollars which it originally invested in the pipe. So there must be paid each year for the use of this pipe not only the interest on the thousand dollars which it cost, but a sum of money each year which at the end of twenty years will provide the second thousand dollars for the new pipe. This is what the depreciation allowance does. Unless provision is made for depreciation, the public service companies will be in just the same position as that of a man who lends another man a thousand dollars at 6 per cent interest, receives the interest for several years, and then is met by the borrower, who says: "I have lost the first thousand dollars you loaned me and cannot continue to pay you interest on it any longer unless you give me a second thousand dollars."

Inasmuch as the return to the public service companies is limited to a fair interest rate on the money they put into the plant, there must be in addition to the allowance for interest, operating expenses, insurance and taxes, the proper allowance for depreciation or the capital they invest in the business will be

wiped out and destroyed. The interest they receive through rates must be paid out to those who furnish the money for the enterprise and cannot be used to buy new pipes or other equipment.

When all the costs are determined, they are summed up and the aggregate is the necessary gross revenue which the company is entitled to receive. To illustrate, let us assume that the public service company has a million dollars of money actually invested in its plant and properties used in the public service, that the fair interest rate is 7%, that its annual operating expenses including insurance amount to \$100,000, that its annual taxes are \$25,000 and that the annual allowance for depreciation is also \$25,000. Summarizing, we have:

Operating expenses and insurance .....	\$100,000
Taxes .....	25,000
Depreciation .....	25,000
Interest return .....	70,000

Total gross revenue.. \$220,000

When the total gross revenue necessary to meet the situation is thus fixed, the next problem is to spread or distribute this gross revenue over all the classes of consumers. Every large utility has many classes of consumers, and the effort always is to spread the rates in accordance with the respective costs of the various classes of service involved. The cost of service varies among the different groups of takers. In a water works, for example, one large industrial consumer may take at a single point of delivery as much water as 10,000 individual householders. It will be seen at once that the service to this large industrial consumer will be less costly than the service to the 10,000 householders. In the one case there is only a single service and meter to install, a single meter to read and a single account to keep and bill to collect. In the other case, there are 10,000 services and meters to install, 10,000 meters to read, 10,000 accounts to keep, 10,000 bills to send and 10,000 collections to make. An illuminating example can be

found in the power industry. Suppose there is an electric power house from which lines radiate east and west. Assume one line to run to the east and to be connected with a factory which consumes a supply of 4,000 kilowatts of electric energy day and night. Assume another line of equal length to run to the west to a town where a supply of 4,000 kilowatts is to be distributed among the inhabitants. Obviously, the cost of service to the factory is much less than the cost of service to the town. With the factory customer, the cost of distribution begins and ends with the line running from the power house to the factory. In contrast, the cost of distribution to the city must include not only the line to the city but also an electric substation and a network of distributing lines to the various residences, offices, stores and buildings in the town.

The controlling element in the distribution or spread of rates is the cost of each class of service. With the necessary gross revenue fixed, the problem of the rate-fixing body is to spread the cost of service in rates among the various classes of consumers on the equitable basis of the cost of their respective services. Roughly speaking, this is done by determining the amount of service required by each class of consumer, the cost of each class of service, and, with these factors established, pro-rating or dividing the payment of the necessary gross revenue among the various classes of consumers on a cost basis.

It will be seen from the foregoing that business and economic conditions really fix rates and not the public utility commissions. All a commission can do is to determine what the facts are and act accordingly. A commission cannot control the cost of labor, materials, supplies or the rates of interest which must be paid for the money in the enterprise or for the new money which must be continually obtained to develop the enterprise and keep even with the growth in its territory. What rates do is to meet the cost of service, that is the cost of labor, materials, supplies and interest, and these costs are fixed and controlled by economic conditions.

# OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION



Chairman Henderson, Portrayed by E. W. Deane

## HOW CHAIRMAN "WILD BILL" CAME THROUGH

### I.

A hush came o'er the meeting  
As the chairman rose in state,  
With gavel clenched in both his hands  
He certainly looked great.

### II.

He spoke in whispers loud and low,  
As each one gazed and swore  
To see those lips move swift and fast  
To see—yet nothing more.

### III.

"'Tis Wild Bill," yelled the lookers-on,  
"Wild Bill of gas-trick fame!"  
They sat in awe and wonderment  
As they heard that famous name.

### IV.

"Speak up, Bill," came a pleading cry,  
"Your gas is giving out;  
More pressure on the main line, Bill!"  
Poor Bill's head shook in doubt.

### V.

He raised the pressure, but his voice  
It hadn't any go;  
Bill's words scarce reached beyond at all  
The first or second row.

### VI.

It was a pantomimic sketch,  
But Bill was game throughout;  
He scorned advice from one poor wretch  
To have his pipes blown out.

### VII.

Wild Bill made more than one big hit  
Whenever he was able—  
'Twas when he banged his gavel down  
Upon the walnut table.

### VIII.

Electric service fellows grinned  
As Wild Bill they surveyed  
And watched him flicker slowly out,  
Voiceless and dismayed.

### IX.

"Takes us to make you see the light,"  
They chorused gleefully;  
"Electric service, that's the stuff,"  
Quoth Billy, "Pity me."

### X.

The mem'ry of that awful night  
With Bill will long remain;  
He's out for chairman now no more—  
"Not me," sighs Bill, "I'm sane!"

—E. W. D.

Memories of the Democratic convention were vividly brought to the minds of those fortunate enough to be in attendance at the meeting held at Elks' Hall on January 25th for the purpose of organizing the San Francisco Division of the Pacific Service Employees' Association.

It was not thought necessary to open the meeting with prayer, as in the national gathering, but the banners, placards and intense partisanship of the larger affair were all there.

Mr. Henry Bostwick, Division Manager, was on hand to meet with and address the men and women of "Pacific Service" and called the meeting to order, with Mr. W. M. Henderson of the Gas Distribution Department as temporary chairman and Mr. Adolph Gudehus of the Bookkeeping Department as temporary secretary. Mr. Bostwick's address was a cheerful talk on courtesy and

loyalty. He congratulated members of "Pacific Service" for the interest displayed in the association, and confided to us that the idea for such an association as we now have was engendered as far back as 1908. Mr. Bostwick talked of "Pacific Service" as a synonym for courtesy and service and asked all present to help him make the words "Confidence, Cheerfulness and Optimism" the slogan of the San Francisco Division for the year 1921 and the other years to come. The cheers which greeted his speech gave the assurance he looked for.

Chairman Henderson outlined the objects of the meeting and introduced the speakers of the evening. The addresses were of necessity short and to the point in view of the tremendous amount of business before the house. Mr. A. U. Brandt, chairman of the parent organization, spoke of association plans and presented the Drum basketball trophy to Mr. Bostwick. Incidentally, this trophy has to be won but once more by the San Francisco Division team to become the Division's permanent possession. Mr. Earl Fisher, Chairman of Divisional Activities of the Pacific Service Employees' Association and sponsor of the plan of divisional organization, followed with a snappy talk on the advantages of putting the association into the hands of the employees.

After the reading and adoption of Constitution and By-laws the meeting settled down to the real *piece de resistance* of the evening—the nominating and electing of a chairman, vice-chairman and secretary-treasurer. Although nominations could be made at will, it was generally understood that there were but two tickets in the field—one headed by Grover S. Tracy for chairman, with Jesse Marshall and Miss Clara Cosgrove for vice-chairman and secretary-treasurer, respectively, and the other made up of J. A. Johnson, Charles Larrabee and Lester N. Sachs. Mr. Johnson's name was placed before the house by Mr. Pat Finnigan, seconded by Mr. James Cunningham, and Mr. Tracy was put in nomination by Mr. William McLaughlin, seconded by Miss Gray.

At this point Chairman Henderson became alarmed at the length of the nominating speeches and the possibility of missing the dance, and backed up by a viva-voce vote from the floor limited

the speeches to three minutes. Some were in favor of cutting this down to two minutes, but the Chairman explained that it took at least three minutes to thoroughly expound the qualifications of the various candidates.

The nominations then proceeded for vice-chairman, with Jesse Marshall, sponsored by John J. Cunningham, seconded by Louis Melbourne, and Charles Larrabee, nominated by Avery Henderson and seconded by Ed Floyd. For secretary-treasurer Eddie Woods nominated Lester Sachs, seconded by C. C. Cathcart, and William McLaughlin did the honors for Miss Cosgrove, seconded by Miss Helen Vollmer.

The balloting over, Chairman Henderson announced that dancing would be in order pending announcement of the result. The very excellent music rendered by an orchestra engaged for the occasion convinced many of the old guard that there were still several good dances left in them.

The outcome of the vote was announced from the chair as follows:

For Chairman:

Johnson .....	340
Tracy .....	230

For Vice-Chairman:

Larrabee .....	339
Marshall .....	230

For Secretary-Treasurer:

Sachs .....	363
Miss Cosgrove .....	210

Thus ended the first election of the San Francisco Division of the Pacific Service Employees' Association. As Mr. Bostwick aptly put it, "The names of all the candidates could be placed in a hat and the last name drawn would be equally as qualified as the first."

The meeting was interspersed with entertainment. Mr. Frank Thompson told some of his inimitable Irish stories and the orchestra put everyone in good humor with the latest dance music.

C. E. M.

The first out-of-town gathering of the present year was held at Sacramento January 29th and 30th. It was an unusual experiment, holding this meeting in the capital city so early in the year, for in former seasons the early spring-time had been chosen, but while the



Weather God was not so propitious as we would have liked him to be the attendance was larger than upon any previous occasion and there was an all-pervading atmosphere of enthusiasm which bade defiance to the elements.

Since these out-of-town meetings were inaugurated, there has arisen in the divisional sections of "Pacific Service" a spirit of emulation upon which no limit can now be placed. One division vies with another in quality and lavishness of entertainment. Consequently, one sets forth upon the outing not only resolved to have a pleasant time but wondering what new feature will spring forth to swell the record of achievement.

Certainly our brothers and sisters of Sacramento division and the adjoining districts of Solano and Yolo, as joint hosts of the occasion, did themselves proud. The scene of the festivities was Masonic Hall. The program opened with a bountiful supper, consisting of salad, chicken, ice cream and cake, coffee and all the good things that one could wish for, and served free of charge to some 550 men and women of "Pacific Service." Upon inquiry it was learned that the various materials that made up the feast had been contributed here and there among the membership. Managers Florence, McKillip, Sedgwick and Coons, with various other officials of the company donned caps and aprons and waited upon their guests in first-class fashion. A local orchestra played during the supper. Everything went like clockwork and the tables were cleared in ample time for the evening show.

Joseph B. Smith, as chairman of the Sacramento divisional section of the P.S.E.A., made the opening address of welcome. Then came Mr. Wm. B. Henderson, of the gas distribution department, San Francisco division, in an address upon the educational features of our Association, pointing out the great value to both men and women employees of instruction upon the physical and technical points of our great "Pacific Service" system.

Right upon the heels of Mr. Henderson came Mr. R. A. Balzari, of the Westinghouse Company, in an address advocating active membership in the National Electric Light Association. In this Mr. Balzari called attention to the bulletin of its proceedings which the N.E.L.A. issues every month, in addition to the

report of the annual convention which is sent out once a year. It was not a question of financial gain, the speaker explained. "As a matter of fact," he said, "the cost of each Class B membership of the Association is \$10. It costs you \$3." In a word, the text of Mr. Balzari's address was, "Come in: the water's fine."

No meeting of the kind would be complete without an expression from the reigning chairman of the Association. Mr. A. U. Brandt came forward with a few well-chosen remarks that were happily presented and made everyone feel welcome.

The principal address of the evening was presented by Mr. Charles P. Cutten, Attorney in Charge of the Rate Department. Mr. Cutten started with a humorous reference to the recent laurels won by our former chairman, Earl Fisher, on the Del Monte golf links. "He needn't swell up," said Mr. Cutten, "his gross score was 147, and that isn't golf."

Mr. Cutten quoted Roosevelt in the advice, "Put your faith in God and take your own part," and paraphrased this to read, "Put your faith in your cause and defend yourself." He thought "Pacific Service" was a marvelous organization to be attached to. It had gone through the war and stood out as one organization to which the overworked consumer could not point and say, "There goes a privateer." Mr. Cutten spoke upon financial subjects and denounced the campaign of misrepresentation through which the political agitator hoped to put the public service corporations in a false light before the public.

"It is necessary," said Mr. Cutten, "that those misinformed receive proper information and those not informed at all be made to see things as they are. Within the next twelve years a million dollars a month will be required to be spent in the development of California. Each employee should maintain the rights of the organization he serves and defend them before the world. For that means so much to the State of California."

Following Mr. Cutten a genuine vocal treat was given by Mr. Geo. Baldwin, Jr., son of our old friend, "the Captain." Mr. Baldwin has had considerable stage experience and his fine baritone was a revelation to all who heard it. He was encored again and again. He was accompanied by Miss Olive Bryson. Then

came Mr. Arthur Pratt, who performed upon a violin of one string made out of a cigar box. Two ladies furnished the concluding numbers of the musical entertainment. They were Mrs. Lee Pierce, of Woodland, and our Mrs. Ed. Florence, late of San Mateo, now of Sacramento. Both sang delightfully and were most heartily welcomed.

Dancing followed the entertainment program. Light refreshments were served. It being Saturday night, all retired at a reasonable hour and the following day the visitors were taken on various trips, one through the Capitol grounds, another to Mather Field, Florin and Folsom prison. The call for home was sounded in the late afternoon. Altogether it was a most enjoyable outing and congratulations are showered upon those who "put it over."

The opening trans-bay gathering was held at Oakland on the evening of Tuesday, February 8th. Upon this occasion the place of meeting was changed from the Ebell Club, which is down town, to the Home Club, which is located in a beautiful dwelling situated upon a flower-covered eminence in Cottage avenue.

The location of this appeared so attractive to us as we climbed the steps leading from the car track to the house that we wished it had been summer time that we could better have breathed the fragrance of the flowers and looked out upon the landscape of beautiful valley that spreads out from the porch. But if we had not sunshine we had light in plenty and there was a hearty welcome waiting us upon our arrival.

The Home Club is an ideal place to hold an outing. It has ample reception rooms and a large commodious entertainment hall with a good stage and all the necessary properties.

Every seat was occupied when the curtain rang up upon the show. Unfortunately, Mr. Lee Newbert, manager of the East Bay Division, was indisposed, so that an interesting feature, the presentation of service buttons to employees whose length of service entitled them to wear them, had to be postponed. However, there was an excellent program of entertainment and our company's president, Mr. W. E. Creed, was on hand to tell the men and women of "Pacific Service" what he thought of the King

tax bill and those who in their frantic endeavor to insure its passage were indulging in misstatements concerning the public service corporations. In the course of his remarks Mr. Creed said:

"The Pacific Gas and Electric Company is not concerned in running the State. It is perfectly willing to abide by the law which says it shall bear a just portion of taxation. But it is not willing to bear unjust taxation, the sole object of which is to encourage an already extravagant State government in further extravagances for which there is no justification."

The arguments against the King bill have been publicly presented of late in many ways and places. Mr. Creed ran over them in his quick, incisive way and he struck the keynote of the situation when he asked this question: "Haven't we a right to know for what this money is to be spent?" The Governor of California has preached economy and now wants to increase appropriations for commissions which he himself has said should be abolished." Concerning Governor Stephens' threat of an ad valorem tax of 22c per hundred dollars throughout the State, in the event of the failure of the bill, Mr. Creed said simply, "He won't dare."

Our President's remarks were listened to with great interest and the applause at their conclusion bore the stamp of sincere appreciation.

Mr. Ralph Brandt, son of our Association chairman, made his first appearance before the membership in a violin solo. He gave de Beriot's "Scene de Ballet," and to say that it was well rendered would be to give faint praise. Mr. Brandt is a very young man and if he perseveres with his musical studies he has more than an ordinary future before him. His playing was remarkably fine for an amateur.

Our beloved Vice-President and General Manager, Mr. John A. Britton, was on hand with a few cheery remarks. He sounded a most popular note when he announced his intention to give a present to each of the girls of the winning girls' tug-of-war team, a heretofore unheralded feature to be staged at the Oakland Frolic on February 26th.

There were some numbers by our "Pacific Service" orchestra, which under the leadership of Mr. L. A. Melbourne is making rapid strides toward the professional class.

The program of entertainment closed with a performance by our "Pacific Service" players of a one-act comedy, "The Florist Shop." This is one of the plays presented by the Harvard Dramatic Club. It is light and breezy and well within the amateur scope. The cast of characters follows:

Maude, the florist's bookkeeper.....  
 ..... Agnes Buckingham  
 Henry, the office boy.....Ray Casaleggio  
 Slovisky, the proprietor.....Himself  
 Miss Wells, a spinster.....Tessie Brewer  
 Mr. Jackson, interested in Miss Wells.  
 .....Chas. A. Carlson

The part of the florist, down on the program as "himself," was in reality taken by one Wm. Hogarty of the East Bay division. His rendition of his part gave his audience the impression that this was not his first appearance before the footlights. Mr. Frank Mathieu directed the performance.

By the time this issue of PACIFIC SERVICE MAGAZINE reaches its readers the out-of-town gathering at Fresno scheduled for February 19th and 20th will have been held. The season is not quite advanced for the Raisin Show, but Division Manager Ross and his co-workers have assured us that visitors to the Raisin City will not be disappointed.

The annual Frolic to be held as already announced at Oakland, February 26th, will be this year under the direct supervision of the East Bay Section of our P.S.E.A. Chairman Shuhaw and his committees are hard at work and they promise something unusually attractive. All that is known of it at present is that it will be in the nature of a three-ring circus, something going on all the time. F. S. M.

The East Bay Division held its first dance of the year Saturday evening, January 15th, in the Berkeley office.

The entire top floor was cleared of furniture and attractively decorated with evergreens and colored streamers. District Manager Pape was the social lion of the occasion, closely seconded by Division

Manager Newbert, who led the grand march.

The three hundred employees, wives and friends made it a big success from start to finish.

The pretty girls, jazz music, and cider punch (all guaranteed harmless) were big factors in the affair.

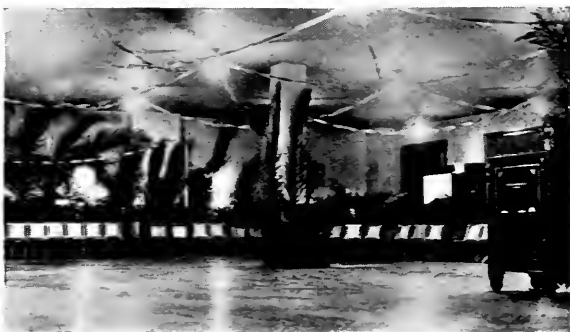
Berkeley district may well be proud of its affair.

The "Gas House Terriers" Athletic Club entertained the members of the Pacific Service Employees Association and their friends at the Pacific Gas and Electric Company's Gas Station "B," Thursday evening, January 27th, with boxing, wrestling and other athletic stunts.

Music was furnished by the Mexican String Orchestra and the American Jazz Orchestra.

The Y.M.C.A. athletes were a big feature in making the evening a success.

President W. E. Creed and Vice-President and General Manager John A. Brit-



The dance hall in our Berkeley office.

ton were on hand and each gave a short talk. Other officials present were: Division Manager Lee H. Newbert, Assistant Manager Geo. B. Furniss and District Manager J. H. Pape of Berkeley.

A. U. Brandt, President of the Pacific Service Employees' Association, assured those present that the parent association was glad to co-operate with them and help our section in our undertakings in every way possible. W. W. Shuhaw, Chairman of the East Bay Section, told of some of the future plans of the association and invited the members to attend the meetings to be held at Sacramento and Fresno in the near future.

The following program was carried out in a snappy, entertaining way:

1. Dance by Miss Aylett and partner.
2. Pyramid building and tumbling by Y.M.C.A. athletes.
3. Boxing by Flaherty brothers—two 3-minute rounds.
4. Wrestling by English and Wiseman.
5. Boxing by Boyington and Wilson—two 3-minute rounds.
6. Song by Aylett.
7. Boxing by Enos and Thorne.

The Pacific Service Employees wish to thank Chairman Reinhard and the other members of his club for a pleasant evening.

At a recent meeting of our executive committee Chairman Crossman of the membership committee announced that as of February 10th the total membership in our Association stood at 2696. Figures were given for the various territorial division sections of these. It is sufficient to say that at present San Francisco heads the list with 915 members, or 62 per cent of the employees of the division. Surely a great showing.

At a meeting of Sacramento division section held January 31st, the section chairman, Mr. Jos. B. Smith, was presented with a wooden gavel made by the "boys" of the Sacramento street railway department. Mr. Joe Beer of the collection department made the presentation address.

#### SAN FRANCISCO BASKETBALL CHAMPIONS

The close of the 1920 basketball season finds the Drum Cup safely deposited within the confines of the San Francisco division.

The final game was between the two winning teams of the series, Alameda and San Francisco, and those who took the trip to San Mateo on the evening of January 24th to see this final game played were well repaid for their enthusiasm. Mr. Henry Bostwick, Manager of the San Francisco Division and Mr. A. U. Brandt, Chairman of the Employees' Association, were enthusiastic spectators at the game, which was well played by both teams. The honors fell to the San Francisco boys for their consistent playing and the excellent work of Duckel, Anderson and Eckenroth. The score was 17 to 8 in San Francisco's favor.

The tournament record stands as follows:

Team.	Won.	Lost.	Per Cent.
San Francisco . . . .	3	0	1.000
Alameda . . . . .	2	1	.666
San Jose . . . . .	1	2	.333
Sacramento . . . . .	0	3	.000

H. L. E.

#### SAN FRANCISCO DIVISION BASKETBALL TEAM

*Season 1920*

Winners of Drum Cup for this Season



Left to Right: Rear—Anderson, Hardege, Pelle (Manager), Duckel (Captain), Eckenroth. Front Row—Ebbeckee, Gerber, Mulford and Robinson.

The Financial Side of "Pacific Service"

EARNINGS STATEMENT

Owing to the unavoidable delay incident to the independent audit and closing of the Company's books for the year 1920, the customary statement of earnings is omitted. Publication of these earnings will be resumed in the March number.

DISTRIBUTION OF STOCK OWNERSHIP

At the close of January, 1921, the Company's stockholders numbered 15,735, of whom 12,708 held preferred and 3,027 held common stock. It is apparent from the following table that at least 12,305 Californians, constituting 78.2% of the total number of stockholders, are directly interested in the Company's welfare through ownership of its stock alone, aside from the numerous holders of bonds and notes. The constantly increasing list of customers and employees who are becoming partners in the enterprise affords an indication of the confidence with which the investors of this State view the present conduct of the Company's business and their faith in its future.

	NUMBER OF HOLDERS		TOTAL STOCKHOLDERS		PAR VALUE
	PREFERRED	COMMON	NUMBER	PER CENT	
California .....	11,177	1,128	12,305	78.2	\$42,221.388
Coast and Honolulu, excluding California.	269	60	269	1.7	1,089,100
Middle States	297	482	779	4.9	4,297,900
Eastern States	973	1,212	2,185	13.9	19,596,900
Foreign .....	52	145	197	1.3	2,173,800
Total	12,708	3,027	15,735	100.0%	\$69,379,088

The total number of the Company's security holders at this time exceeds forty thousand.

THE FINANCING OF CALIFORNIA UTILITIES

According to its recently published annual report, the California State Railroad Commission in the period from March 3rd, 1912 (the effective date of the Public Utilities Act) to June 30th, 1920, authorized the issuance of over one billion dollars par value of securities, distributed as follows:

Steam railroad	\$324,666,014.89
Electric railways	86,461,382.00
Gas and electric companies	398,645,495.10
Water companies	100,009,393.90
Telephone and telegraph companies	24,585,360.38
Warehouse companies	4,298,165.00
Car companies	160,000.00
Pipe line companies	59,753,433.00
Steamship companies	2,044,437.00
Motor companies	897,355.00
	\$1,001,521,016.27

During the twelve months ended June 30th, 1920, the Commission approved the issuance of \$91,038,485.12 of securities, of which \$67,349,764.05, or 74%, were to be issued by gas and electric companies.

About two-thirds of the securities authorized during the year were for additions and betterments, as indicated by the following tabulation:

## PER CENT OF TOTAL AUTHORIZED

PURPOSE	YEAR ENDING JUNE 30, 1920
Additions and Betterments.....	65.26%
Refunding.....	4.71%
Collateral.....	24.25%
Reorganization.....	3.13%
Miscellaneous.....	2.65%
	100.00%

The securities of gas and electric companies authorized to cover additions and betterments only, amounted to \$47,326,204.05, or 79.7% of the total stocks, bonds, notes and certificates aggregating \$59,413,772.56 authorized by the Commission for this purpose. A segregation of the latter amount among the various utilities of the State follows:

Steam railroad companies.....	\$ 5,070,865.80
Electric railway companies.....	183,779.04
Gas and electric companies.....	47,326,204.05
Water companies.....	4,058,850.67
Telephone and telegraph companies.....	57,200.00
Warehouse companies.....	827,600.00
Steamship companies.....	1,249,500.00
Motor companies.....	639,773.00
Total.....	\$59,413,772.56

These figures afford some indication of the effort which is being made by the gas and electric industry to proceed with the comprehensive program of construction which it has undertaken, particularly in the development of the large quantity of additional hydro-electric energy which is so essential to the future growth and prosperity of this section of the country. The magnitude of the problem confronting the companies engaged in this industry may be partially realized from the statement that the \$67,349,764.05 of securities of gas and electric companies, authorized during the year, was practically equivalent to the entire operating revenue of \$71,617,422.77 received by these companies in 1919.

The Pacific Gas and Electric Company in that year (including the Northern California Power Company, Consolidated, and the Sierra and San Francisco Power Company, which now constitute part of "Pacific Service") did 40.7% of the gas business and 38.4% of the electric business, or 39.2% of the total gas and electric business in the State of California.

Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

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at 445 Sutter Street, San Francisco

*The Pacific Gas and Electric Company desires to serve its patrons in the best possible manner. Any consumer not satisfied with his service will confer a favor upon the management by taking the matter up with the district office.*

VOL. XII      FEBRUARY, 1921      No. 9

EDITORIAL

Present day writers on the much-debated public utility problem are giving public expression to doubt as to whether, despite all that has been written and said concerning the public utilities of the country, their rights and wrongs, duties and obligations, the people generally understand what is meant by utility regulation and what is comprehended in the term "service."

Concerning the first, it was thought that the adoption of the commission form of regulation would put an end to all doubts and uncertainties as to the conduct of the public utilities in communities under commission rule, that there was an end to all anxiety on the part of the public concerning its due protection against methods that had gotten public utilities into disrepute in days gone by. It would seem, however, from recent events that the public, as a whole, is not fully informed upon the workings of regulation as a two-sided proposition, that of safe-guarding the rights and interests of the public, on the one hand, and, on the other, that of giving due protection to the public utility investment upon whose stability the prosperity of the commonwealth depends to a very large degree.

It would be hardly fair to even suggest that the once popular belief that the function of a regulating body is to protect the public against groups of malefactors of great wealth still exists in the minds of a majority of the people of any community. Nevertheless, there is to be found nearly everywhere a minority holding that idea of regulation, and a minority can make itself heard. Consequently, the campaign of education and instruction is a never-ending one with public utilities for the very necessary purpose of establishing mutual relations of understanding and confidence between themselves and the public they serve.

No need to tell our readers in these columns how necessary the various forms of public service have become to our every-day existence. A well-known writer says: "They form the cornerstone on which is erected the structure of our modern civilization." Now, the public utility is not of great age. As a matter of fact, it is amazing to reflect that barely a century has gone by since gas was first used for illuminating purposes, while the railroad and electric services are of still more recent growth. Electricity, in fact, is an infant yet. Therefore, when it is considered how much has been accomplished in that time, with what rapid strides the public service has moved in the general direction of the public comfort and convenience, it will be seen how very necessary it is that the onward march of the public service be encouraged at every step, and, particularly, that no obstacles of prejudice, ignorance or misunderstanding be allowed to obstruct its path.

The people are entitled to good service at reasonable rates. There is no question as to that. And it was to secure those benefits to the people that the commission form of regulation was adopted. It was seen that service was the essential thing from the standpoint of the public. It was decided that in the interest of the public a body should be created whose duty it should be to see that this necessary service was constantly available without interruption and for a reasonable price. In the beginning, of course, the commission reduced rates in a number of instances. This gave rise to the impression that the reduction of public service rates was the main, if not the whole duty of the public utility commission. Then, the war came along

and prices went up. Operating costs, including labor and material, went up to such a point that the public utilities were compelled to apply to their regulating bodies for relief in rates to protect their investments. Investigations were held, and when it became apparent that no immediate recession of utility operating costs could be hoped for, the utility commissions took it upon themselves to raise rates to meet the new conditions. Then it was that the political agitator stepped in and began to denounce the commissions as being too friendly to what he termed "the interests."

In a campaign of that kind the question of service is laid aside. And yet, with or without regulation, there can be but one real service and that is the service that is supplied at a rate sufficient to enable the utility to supply that service. Any rate less than that must mean, if not actual confiscation of the utility's properties, at least such hampering restriction upon the utility's development as must react unfavorably upon the progress and prosperity of the entire community within which that utility operates.

Writing in the current issue of *Public Service*, Mr. Arthur W. Park maintains that whatever unfriendly public feeling there may be toward commission regulation is due to an imperfect understanding of the situation, the nature of the service rendered, its importance and the commission's function. He observes:

"The public must have service and if rate increases are necessary to preserve the service those increases must follow and remain in force so long as a need for high rates continues. When costs recede rates may recede with them, but the costs must initiate the movement whether it be upward or downward."

"What best serves to conserve and develop the public utility best serves to conserve and develop the interests of the community it serves. Without the utilities our cities would become deserted villages, our homes would be darkened and the wheels of our industry stopped. No citizen should countenance any act of a utility commission which would deprive the public of an adequate service for a fair price, and by the same token no measure or movement tending to

hamper or restrict conservative, careful development of the public utilities is to be construed as other than unfavorable to the public interest."

Mr. Walter A. Shaw, president of the National Association of Railway and Utility Commissioners, makes the point that "Service is the keynote of regulation." He discussed this at a recent convention of the Association. In the course of his address he said:

"Within the last two or three years insistent demands have been made upon State commissions to increase all classes of rates coming within their jurisdiction. In the majority of cases it has been necessary to meet these demands by authorizing substantial increases. In most instances, especially as to street car fares, the authorized increases exceeded those prescribed by the so-called contract ordinances or franchises granted prior to the creation of the State commissions.

The abrogation of many of these franchise provisions has been seized upon by self-seeking politicians with the idea of furthering their own selfish ends by making the commissions unpopular.

"This type of politician has come into his own with a great blare of trumpets. He plays upon the well-known prejudices of the public against corporations in general, and utility corporations in particular, by picturing them as contract breakers who prospered unduly before the war, accumulated excessive bank accounts and are now unwilling to share their part of the burdens brought on by the war. The companies are cleverly depicted as fully capable of carrying out their contracts and that were it not for the State commissions these contracts would be binding and the public would not be required to pay the increased rates. These individuals, of course, conveniently forget to tell the public that in the absence of the commissions utility corporations would have the right to resort to the courts which would fix rates under the provisions of our Federal law and State constitutions which prohibit the confiscation of property without due process of law. Such procedure has been adopted by certain carriers in obtaining increased passenger rates in Illinois and other States."



## IN MEMORIAM    29    JOSEPH C. LOVE

Died February 5th, 1921, age 64 years

On February fifth of this year there passed into eternity the soul of one of our pioneer co-workers in "Pacific Service," Joseph C. Love.

Cherished by those who knew him well, respected and esteemed by all with whom he came into contact, his passing leaves a void in the ranks of us who had the good fortune to be numbered among his host of friends.

"Joe" Love, as he was known to his intimates, first established his connection with the gas and electric industry in 1901, when he became accountant for the California Central Gas and Electric Company, and from that time until his death he was prominently identified with the accounting branch of the Pacific Gas and Electric Company and its predecessors, filling with rare ability the positions of traveling auditor, chief auditor and assistant treasurer, which position he held at the time of his death.

An arduous and unrelenting worker, he served well and faithfully for a full score of years the public utilities which employed him and, through them, the hundreds of thousands of consumers who were dependent upon those utilities for what have come to be two of the prime necessities of life—gas and electricity.

He was a devoted husband and father. He was a lover of nature, with which he communed through the medium of the flowers. His happiest hours were those spent in his garden, tending the plants and the blossoms, which to him were not inanimate objects but living, breathing friends.

A busy man, he was never too occupied for a cheery greeting, an endearing smile and a warm hand clasp; a just man, he was, nevertheless, a charitable one, who understood and allowed for the weaknesses and failings common to all; a God-fearing man, there was yet nothing of intolerance or narrow-mindedness in his makeup. He was of the sterling type of man such as America is proud to claim as her citizen, patriotic, industrious, home-loving.



Our hearts go out to his loved ones in this their hour of trial. May time with his gentle touch assuage their grief and may they find comfort in the thought that the world is the better for his having lived and that those whom he left behind are the richer for having known and loved him.

LEO H. SUSMAN.

## *Tidings From Territorial Divisions*

### East Bay Division

Rooms to rent. Wanted, by a refined middle-aged gentleman, literarily inclined, a suite of rooms with running water. Home evenings excepting when he is out. Anyway, he had us all hustling around to find him rooms. He had been ordered to vacate because he had reached the age limit.

It was this way. He was living at the Y. M. C. A. and they, the directors, fixed the age of spring chickens, so one of the boys said. This meant that R. A., and some others, had to vacate in obedience to the newly made rule. He asked every one and scanned every classified ad. Finally in desperation he, himself, inserted a small ad. He received 39 replies. None of them looked good. One was away out in Melrose. It stated:

"We think we have what you want. The room is \$2.50 per week. Bath 25c. That is, room and bath \$2.75."

Now R. A. wants to know if the bath means a Saturday night affair and if he is out that night, if there is a rebate.

Should any one know of some nice, conveniently located, quiet rooms please do communicate with R. A. Gentis and oblige a host of friends.

Ray Biven, the distinguished elderly looking gentleman at the main counter, Thirteenth and Clay, does not have to pursue a rainbow to find a pot of gold. Last week he started upstairs and while passing through the main corridor picked up a fifty-cent piece. When he came back he passed the front door and there lay a five-dollar bill!

Comfort and convenience, through electricity, are a matter of course in the city. Suppose you lived away off in the country. Mrs. Leila M. Lee near Niles, writes:

"My 'sonny boy' says to tell you he is gaining much more rapidly because his mamma's disposition has improved so much since you had the lights fixed for us. The washboard and broom have flown to the woodshed."

Miss Brewer, the expert on the electric ledgers, says a woman can do much to brighten the home if the hubby will pay the light bills.

Berkeley's record for stock sales for the month of December was 389 shares, but the month of January boosted this record materially, the total being 530 shares. Of these 919 shares fully 50 per cent was sold by employees. The Collection Department holds the record for the greatest number.

We are happy to state that Miss Ethel Kerrigan, comptometer operator, who has been seriously ill since December 6th, returned to work on February 1st. Also, Harry Larson, who had a bad attack of the old fashioned "flu," is now back in charge of his line gang.

The results of the campaign at Gas Station "B" for placing First Preferred stock has resulted in the sale of two hundred and twenty-four shares to eighty-five employees. We have not concluded our efforts as yet and expect to place fully fifty more shares. The largest sale was twenty-five. Mr. Caruso is now a stockholder.

Mr. R. B. Simpson of Gas Station "B" was presented with a 7-pound baby girl on January 11th. Mother and baby are getting along nicely. Simpson believes in the old saying: "It's the little things in life that count."

Time: January 27, 1921; place; Gas House Terriers' Club, Gas Station "B," Oakland, East Bay Division. Who? Over four hundred people, men, women and children from all departments. Why? The Terriers were putting over a ladies' night, entertainment backed by the East Bay Division of the P. S. E. A.

A most notable occasion and a magnificent success.

We, the members of the Terriers' Club, take not a little, but a great deal of pleasure in announcing that within our midst were Mr. W. E. Creed, president of the company, accompanied by Mrs.

Creed, Mr. John A. Britton, vice-president and general manager of the company; Mr. L. H. Newbert, manager of the East Bay Division; Mr. A. U. Brandt, newly elected president of the P. S. E. A.; Mr. W. W. Shuhaw, newly elected chairman of the East Bay Division.

Mr. Van E. Britton very kindly welcomed our guests and we were favored with addresses from each of the above mentioned gentlemen.

The program was pronounced a success from start to finish. It was replete with boxing, wrestling, singing, music, addresses and a very clever gymnastic tumbling stunt contributed by the Oakland Y. M. C. A., directed by Dr. Dietz. We wish to thank the boys and Dr. Dietz for their kindness and also wish to remind Mr. W. A. Kearns, physical director of the Y. M. C. A., that we are again in his debt not only for the stunt, but for his own personal efforts in our behalf. Mr. Kearns is the proud possessor of an exceedingly promising youngster, who gave us an exhibition creditable for a Sandow in breathing, balancing and posing.

The attendance of the ladies was a joy to our hearts and we take it as a compliment to us that so many were present. It means our efforts are not in vain.

Plans are out for a real "HE" night soon and will see that invitations are issued to all Red Blooded Admirers and Friends.

Jack Mulgrew, the dean of the gas meter department, has a promising boy. The lad was in a shoe store and much impressed the shoe clerk with several witty replies. The clerk said, "You are a bright boy, my lad." "Yes," the boy replied, "my dad calls me 'son'."

Agnes Buckingham made a big hit as leading lady in the "Flower Shop" at the employees entertainment. You noticed Bill Shuhaw did not take part. He was not allowed to talk. That's why there were so many flowers on the stage—took a lot of flowers to "say it" for Bill. The players all did well and everyone seemed pleased.

Jack Krug of the Collection Department believes it is better to let a volcano spout than to try to hold it in.

On January 26th, a get-together dinner at the Avenue Restaurant was arranged for the men of the Collection Department. After the twenty-eight present had partaken of a good feed Jack gave a talk and among many other things invited those present to relieve their minds of whatever might be troubling them. From all accounts they did. It proved so refreshing to all that they are planning more such times. For entertainment Arthur Magill played several piano selections and Clarence Oliver sang some love songs. John Krug is well up in music himself. You just mention a piece and he will name the piece on the other side of the record.

Miss Viola Bowman, phone operator, is the latest of Berkeley's employees to step into the ranks of the newlyweds. She left us January 15th to become Mrs. J. W. Redd. We wish them every happiness.

"Pacific Service" sent out one hundred invitations to the club women of Washington township to attend a luncheon at Centerville Club House. Seventy-nine accepted and were present. Mrs. Farnsworth prepared the lunch and cooked everything on a No. 50 Hughes range. The "piece de resistance" was a baked ham which called forth the praises of the ladies. Potatoes, peas and carrots, hot biscuits, coffee and cake completed the course.

Messrs. Martinez and Strauch were present to demonstrate the electric appliances and in which the ladies expressed the keenest interest. The Western Electric Company and Holabird-Reynolds Company furnished the appliances. Mr. L. F. Galbraith gave the ladies a brief talk and then introduced Mr. W. W. Shuhaw, who held their closest attention as he dwelt on the modern electric labor-saving appliances for women in the home. Mrs. F. V. Jones, the president of the club, expressed the thanks of the club women to the Pacific Gas and Electric Company for the luncheon and the efforts put forth to interest and instruct them.

Again the diamonds sparkle in the Richmond office and the announcement of Miss Carmen Kinney, the popular office clerk, that she intends taking into her confidence Mr. C. A. Johnson, one of the popular employees of the

Standard Oil Company, has cast a gloom over the employees of the district at the thought of losing her smiling face and pleasing disposition.

Gas has been run to the San Pablo School, Richmond. The gas will be used for heating the school rooms and, later on, for domestic science and a lunch room.

The Standard Oil Company's new can plant, which is located in the refinery yard, is nearing completion and will be supplied with the Selas system, which is being installed.

Is it necessary for "Pacific Service" to have a hunting license? A large hawk was killed near Tunnel Road, Berkeley, by shorting the high tension line and burning it down. The silent charred remains told the story. Yet that line was quickly switched out and "Pacific Service" went on.

The old proverb reads, "Circumstances alter cases." That happened in the Gas Distribution Department a few days ago. Joe, the new shut-off man, was given a tag to collect a delinquent bill, and upon calling found the said party "deceased," which he noted on the tag. A few days later the tag came back, red-penciled across the face, "Report not satisfactory—collect." Joe called again and wrote on the tag, "Party still dead."

But Roy, another handy man with the wrench, went on the job, but had an experience very much different. His was with a live one. Roy says she was very much alive, for when he appeared at the house to cut off the service the lady appeared on the front steps with something in her hand that looked to Roy like a machine gun. She had a very demure smile on her face and said to Roy: "Now if you want to enjoy the summer weather you had better journey on." From the way the shovels went back into the wagon you can rest assured that Roy is going to have a good time this summer. However, a policeman solved the problem.

What is an electric meter and how does it operate? L. D. Tyer of the Electric Meter Department, explained this

at the Elmhurst School before the class in science. Mr. Tyer is doing splendid educational work.



IN MEMORIAM - CHARLES H. COWELL

Died Jan. 23d, 1921

"Charley" is with us no more. Never again will we see his cheerful smile; never again will we feel his hearty handshake. But nothing can deprive us of the remembrance of him, his happiness, his faithfulness, his joy while serving others.

The stern hand of Death has taken another from the family of "Pacific Service" after twenty-two years of duty, and the loss is great. Truly he spread the gospel of good cheer and his going leaves an aching void, but he set an example for good from which we all can model.

He was loved by all who knew him, and we who called for his help during times of sickness well know how cheerfully he gave it; how attentive he was to our every want; how eager he was to bring joy to those in distress. We have lost a happy, generous, kindhearted brother.

He leaves a wife and two sons, Charles Merritt and James Bestor Cowell. "Pacific Service" extends its sympathy to the bereaved family.

Sophus Madsen is organizing a little singing society. Friday, February 11th, there was a new voice added and he says it is a regular contralto, too. Everybody is doing fine. Congratulations to Mrs. Madsen and daughter.

WHY DO YOU? That's what they were all asking and thousands of pretty maidens tried to win the prizes offered by the *Oakland Tribune* for the best answer to "Why does a girl close her eyes when she is kissed?" Maude, of the Bookkeeping Department, at 13th and Clay, knows: Ask her. She entered the contest and proved to be one of the winners. Here's her answer:

"You need go no further:

'Just Because'

Supersedes—all other laws."

Maudie Silvera, 1269 Hayes Street, San Leandro, second, \$7.50.

E. B. DE VISION.

### Sacramento Division

Well, Jupiter Pluvius has at last retreated to the place of his well-earned rest. After a bounteous pluvial dispensation he has left us all feeling perfectly satisfied that our summer supply of power-giving fluid is more than ample.

Our last year's experience was certainly an unpleasant one for the reason that instead of trying to obtain additional loads we were compelled to fight them off.

There seems to be a spirit of awakening in the building field. We are receiving more demands for gas and electric extensions for prospective buildings, especially residence prospects.

Sacramento has certainly suffered in population by the dearth of residences of a suitable nature that can be rented. New people are constantly coming to make homes with us and do not care, at least at first, to make an investment of several thousands of dollars in a home when the future has not been definitely determined. We feel that a change is in the air. We know that we at least are ready to take care of all comers.

Our gas extension to Broderick, Davis and Woodland is progressing very well and it will not be long before those towns, especially Broderick and Davis, will be enjoying a new exper-

ience with gas for heating and cooking purposes, while we, on our part, will be enjoying the increased patronage of about four hundred new consumers.

We are now assured of the largest aviation field west of the Mississippi at Mather Field, twelve miles east of here. It will be used as a base for instruction and, also, for the home of the ships used for patrolling the forest areas for fire protection. Wonderfully effective work providing for the double duty of protection of government property, and, at the same time, educating our flying forces in the perfect control of their ships to be used in the many callings of war. The force of men located here will be about two thousand. Many of them have families and, naturally, our city will be the home station. So that in more ways than one it will be a benefit to us. Far be it from me to say that Sacramento will become a "fly" town! But who can tell? Stranger things than that have happened.

The beautiful weather we are now enjoying is beginning to bear its annual fruit of preparation for the regular "week ends." We are so close to the Sierras that an hour's run in an auto brings us into the pine-covered hills, out of the dust and grime of the valley to the beautiful life-giving ozone of the mountains. A regular Hegira occurs every Saturday from May to October, and it certainly is contagious. And the joke of it all is that people want to be "contaged." It's a deadly disease, but what a pleasant ending and cure; Weekenditis is some disease! ! !

Our filtration plant is at last under way. The greatest drawback to the up-building of Sacramento is at last to be conquered. It will require about eighteen months to fully complete this great improvement. From time immemorial we have heard the statement "as clear as Sacramento water"—always in derision—but now it will be said as a verity. It means much to our beautiful city and it will not be long before an increased population will show really what a drawback this one unfortunate condition has been. From all reports the system will be one of the best constructed and up to date in the United States.

## IN MEMORIAM

With deep regret we have to note the passing from our ranks of Thomas Frank Tuke, for many years collection manager in this district, who died January 19th, 1921.

We can give no better tribute to his memory than to reproduce the memoriam adopted by the Retail Merchants' Association on January 22d, reading as follows:

"For the first time since this Association has been organized, has death placed its hands among our directorate and taken from us a very dear friend, enthusiastic, sincere and faithful member and a director on the Board of Governors at the time of his departure from this world to the place unknown.

"Those who knew him intimately cherished his friendship; those who met him in the business world loved to deal with him on account of his equal fairness to all. We can accept the thought of James Whitcomb Riley as he writes:

"I cannot say and I will not say  
That he is dead, he is just away;  
With a cheery smile and a wave of  
the hand,

He has wandered into an unknown land,  
And left us dreaming how very fair  
It needs must be since he lingers  
there.

And loyal still, as he gave the blows  
Of his warrior strength to his  
country's foes.

Mild and gentle as he was brave  
When the sweetest love of his  
life he gave

To simple things.

Think of him still as the same, I  
say:

He is not dead—he is just away!"

We are on the verge of an electric extension in the town of Riverbank, in Yolo county. An application has been filed with us by about fifty householders desiring electricity for lighting purposes. A thorough canvass is to be made here and if the business justifies it we will extend our service into the new territory.

We are having extensive alterations made at 1100 K street in the draughting and map-making departments, with the result of increased efficiency in the work of extensions, both gas and electric. It has long been needed and undoubtedly will produce good results.

The writer has many thoughts concerning the recent Division meeting here, but must allow the Association to take them up. Suffice it to say that we believe that in answer to the challenge of the executive committee "it's up to Sacramento to set the pace," we believe we have, and the name of that pace is "Man-O'War! !" See?

THE CAPTAIN.

### San Joaquin Division

Russell G. Higby, our popular M. & S. clerk, has been transferred from Stockton to the Modesto office. "Rus" has taken unto himself a bride (formerly Miss Persis Miller of Stockton). It is needless to say our best wishes follow him and his bride to their new home.

Among those to receive service badges from this district are:

J. H. Fagg, Stockton, 15 years' service.

F. H. Trowbridge, Sutter Creek, 15 years' service.

G. E. Snow, Stockton, 20 years' service.

Charles Joy, San Andreas, 25 years' service.

B. W. Dodge, Stockton, 10 years' service.

Mrs. Miles Werry paid the Stockton district office a very pleasant visit on February 7th. It is not very often that we have the pleasure of having her call on us, but this occasion was not of her making. When her train stopped at Stockton she understood that she would go to Galt on the same train, then transfer to the Ione branch of the Southern Pacific. But as it happened, the coach she was on was switched to the Oakdale branch and it was several minutes after the train pulled out of Stockton for Oakdale before the conductor discovered that a mistake had been made. The conductor stopped the train and let Mrs. Werry off and she returned to the Stockton depot where an S. O. S. was sent to the Stockton office for assistance. The re-

sult was that she met Mr. Werry in the town of Clements instead of Ione, thanks to the "buzz-wagons" of the Stockton district.

We regret to have to announce the resignation of Mr. Joseph W. Hall, former manager of the San Joaquin district, who has been with "Pacific Service" for the past twenty-three years. Mr. Hall was recently presented with a beautiful watch by the employees of this district. While his loss is keenly felt, we have the pleasure of seeing him once in a while at the office.

The Stockton Chamber of Commerce has been reorganized under the direction of the American City Bureau and some wonderful results have been obtained.

The old Chamber of Commerce had a membership of approximately 350 with a total income of a little less than \$10,000 per year. As a result of the membership and service fund drives the reorganized chamber now has a total of 1370 members at \$25 per year which totals \$34,550, together with a service fund of \$33,702.50 or a total of \$68,252.50 per annum. This fund is pledged by the members and service fund subscribers for each year for the next three years. Mr. A. C. Oullahan, former Mayor of the city of Stockton, has been appointed secretary and manager of the new chamber and Stockton looks forward to a wonderful future.

Final arrangements have been completed by the Kroyer Motor Company for the construction of their new plant for the manufacture of Wizard 4-pull tractors. The contract has been awarded to the Davis-Keller-Pearce Company, a local firm.

Mr. J. H. Fagg, our genial former assistant manager at Stockton, is receiving congratulations from his many friends and acquaintances by his promotion to district manager. To those of us who know of his ability we can only say that this recognition of his services has been fully appreciated.

Authorization has been received in the sum of approximately \$30,000 covering improvements in the Linden-Bellota section. This expenditure is going to improve very materially our service to our consumers in that territory.

ROSA ROSSI.

Miss Rosie Grondona, who has been our efficient stenographer for the past five years, was married on December 15th to Mr. Casear Rossi.

A few weeks prior to her marriage the employees of this district tendered her a reception at her home in French Camp and presented her with a beautiful floor lamp. Nearly the entire force of the district was present and a most enjoyable evening was passed.

They are now comfortably located in a cozy bungalow in the northern part of this city and recently she has resumed her position in the office and the sound of her familiar voice again is a pleasure to her associates. J. H. F.

Mr. C. R. Gill, formerly of Sonora, has assumed his duties as manager of the Stanislaus District. We welcome Mr. Gill and his family, and hope they will like us as much as we expect to like them.

A large and enthusiastic delegation from San Joaquin Division attended the jinks at Sacramento on January 29th, and, without exception, pronounced it a huge success.

Capt. Baldwin provided perfect weather Sunday, and the side trips to Mather Field and Folsom proved very enjoyable.

W. P. Bedgood, foreman at Stanislaus Power House, was hiking over a trail above the plant recently when happening to look back, he saw a rather large bear trailing him. Needless to say he increased his speed, but the bear seemed to come nearer every minute. Finally Bedgood yelled, "If you like my tracks so well, I'll make a lot more for you *right now!*"

George Bettencourt, our curly-headed register clerk, was married recently to Miss Lola Pearson of Modesto. We extend hearty congratulations and best wishes to Mr. and Mrs. Bettencourt.

Mr. R. G. Higby, formerly of Stockton, but now of Modesto office, and Miss Persis Miller were married in Modesto last week. We welcome them to Modesto and hope they will find it a happy home.

Speaking of matrimony, it is rumored that he who is known as Toots, the

guardian of the nuts at Modesto warehouse, is soon to embark upon that uncertain sea. But, who can tell?

"Born on January 12th, to Mr. and Mrs. R. J. O'Connell, a daughter, June O'Connell."

Mr. O'Connell, universally known as "Jerry," is our popular general foreman. The entire division extends warmest congratulations and best wishes to Mr. and Mrs. O'Connell. Mrs. O'Connell (nee Nelson), was formerly an employee of the Pacific Gas & Electric Company.

Mrs. Hattie Stebbins, our counter clerk, had an old lady customer the other day who insisted on giving her her telephone number instead of her address when she came to pay her bill. "And," says Mrs. Stebbins, "There I was trying to find 981 J and it wasn't there."

The office force at Modesto has recently been strengthened by the addition of the following: Mr. H. T. Sutcliffe, formerly of Sonora; Mr. R. G. Higby, formerly of Stockton; Mr. J. K. Tener, Miss Beatrice Harbaugh and Mrs. Hattie Stebbins.

LILLIANDA.

### Shasta Division

Early in January began the dismantling of the old 20 KV. line from Kennett to Keswick. The 60 KV. line from Kennett to Redding is being doubled up with No. 4 copper, all insulators are tested, new cross arms and poles are being replaced where necessary. F. Hansen is in charge of the work. Coram, formerly supplied by the above mentioned 20 KV., has been changed over to the 60 KV. The 750 bank 60-2 KV. transformers are being moved from Kennett to Keswick. The final installed service will be 60-20 KV.

The company is establishing a work camp just outside of the city of Cottonwood where seventy-five men will be employed in the erection of a new substation and power line. When the work is completed another crew will take the place of the departing, to connect up the Pit river plants with the lower system.

There are some 400 men employed on the Pit river power developments. Two-thirds of the main canal for Hat Creek

No. 1 is dug, the steel work of the powerhouse is up and the pouring of the concrete will soon begin.

Three thousand tons of freight lie at Bartle awaiting transportation. The company has 200 head of horses and 26 bobsleds on the freight line between Bartle and Cassel and Fall River mills. Teams are either of four or six horses. At the edge of Cayton valley, which is pretty well out of the snow belt, freight is transferred to wagons.

The big tunnel near Fall River mills has been completed for 500 feet by Francis Rolandi, the contractor, who has about 100 men on the job.

The poles are all in place between Cassel and Round Mountain. From Round Mountain to Cottonwood one-fourth of the poles are set.

Considerable interest is being shown by employees in the company's preferred stock. This faith is due to the company's wonderful system and the splendid character of its executives. There is no better way for the employee to show his or her confidence than by investing savings in the company's stock; the result will be a doubled interest in the class of work they are following. For it is nearly always true, "Where one's money is, so is one's heart."

B. W. G.

### CHRISTMAS ON THE PIT RIVER

Christmas morning dawned cold and clear in the little construction camp on the Pit river. No scenery, save, perhaps, the Grand Canyon, can compare with the beauty and majesty of the scene of old Mount Shasta lifting its snow-capped peak to the starry heavens. No angel song broke the stillness of the morning hour in camp; no epithalamium was raised by human voices to usher in the Christmas morn; yet the fragrance from the pines, and the majesty of our surroundings gave more of the Christmas spirit than is to be found in the cities.

Many of us would have liked to spend the Christmas season midst old familiar faces; yet, when the Christmas day was over, few would have changed their enjoyment or conception of Christmas. "Far from the maddening crowd" they spent the day as perhaps many another Christmas has been spent in the days when modernity was in its infancy.



Reveille, an hour later than usual; the gathering round the breakfast table, the exchange of the old familiar greetings; "good cats," a merry quip and jest, and the day was started in earnest.

Dinner, naturally, was the topic of the day. Mr. Martin, our superintendent, had made it his business to see that the "boys" were not disappointed. In fact he out-did himself, and there was no one that day who fared more sumptuously than we. The menu? Why desecrate the occasion by entering into sordid details? But, just a word; if you want a real good dinner sent for "Jim" Martin, as he is known all over the system. His hat sits a little lower than it did when he first joined the company's organization, but he is still the fun-loving, hard-working "JIM."

Mr. Baum spent Christmas at his ranch and, somehow or other, neither one of the contestants will tell, he "stuck" Grover Green for ten hard simoleons, which, with another ten spot from Mr. Baum, provided Xmas smokes for the boys. Bankers' Van Dykes, too. Thank you, Mr. Baum, for sticking Grover.

The dinner passed as all good dinners do. At night we had our tree, a regular, honest-to-goodness Christmas tree. There we congregated, and music and song and laughter and jest, good fellowship and a royal good time, completed a splendid day. "Twill live long in memory."

### Colgate Division

"Pacific Service" in Colgate Division is held in high regard by the Rotary Club of Sacramento since the "Colgate Division Minstrels," originally assembled for the "Duck Stew" in Yuba City last November, journeyed to Sacramento on the evening of January 29th and there put on what was proclaimed to have been one of the most excellent shows Rotary members had ever witnessed. Several unique new numbers were added to the production and the Rotary Club as a whole expressed itself delighted with the result.

The only unpleasant feature of the entertainment was that it came on the same night as the Sacramento meeting and a number of "Pacific Service" members were unable to take advantage of Sacramento's splendid hospitality by reason of the conflicting event.

Colgate Division established for itself a new stock sales record during the month of January, being credited with 294 shares, according to the account's report on February 1.

Yuba City will honor its hero dead with a memorial park, according to the plans of the Parent-Teachers' Association of that community. Trees in the new park will bear bronze plates engraved with the names of Sutter county youths who lost their lives in the World War.

Landscape gardeners and engineers are at work on plans for the park.

Maxwell, Colusa county, has determined to profit by a recent costly lesson presented when its hotel was totally consumed by fire, entailing a loss of several thousand dollars.

A few days following the conflagration, citizens gathered and formed the nucleus of a volunteer fire department and are planning to purchase modern equipment.

W. G. Harding, owner of the burned hotel, is already making preparations to erect another hostelry which will, he says, surpass in excellence the one which was destroyed.

Agitation in favor of a mammoth fruit and vegetable cannery in Marysville has given rise to the belief that the coming season's pack of Sutter county peaches will go to the market as "Sutter Brand" and will be packed by the growers themselves.

Rejecting several offers of large concerns to erect a model cannery in Marysville, the growers from Sutter and Yuba counties are forming a giant pool and hope to build a large co-operative plant before the summer peach harvest.

Williams, Colusa county, is pointing with pride to one of the finest buildings in the Sacramento valley, which was recently completed by E. J. Miller at an expenditure of \$30,000.

The new structure is a combination motion picture theater, dance pavilion, athletic club, billiard parlor, barber shop, soft drink emporium and civic auditorium. It was dedicated recently with a grand ball.

The Colusa County Superior Court has received from several citizens of Williams a petition for a writ of mandamus

to compel the city trustees to call an election for disincorporating the town. This action follows eight months after the election by which the community was incorporated.

A new municipal water system is the goal toward which the Williams trustees are striving at this time. At a recent meeting a resolution was passed favoring the establishment of a water system to cost in the neighborhood of \$50,000.

The Yuba County Chamber of Commerce has devised a plan by which Marysville will be provided with a commodious municipal auditorium, making it possible to bring conventions and other large meetings to Colgate Division.

If the purchase of a single story factory building, which has been abandoned for industrial purposes can be accomplished, the place can be rebuilt and equipped to accommodate thousands of persons. It is hoped to have the work completed by May 1 when the Knights of Pythias will hold a May Day fete in Marysville. An automobile show and a county fair are scheduled for the spring if the auditorium plan is realized.

FARWELL BROWN.

### San Francisco Division

#### NOTES FROM GAS MANUFACTURING DEPARTMENT

The evening of January 21st, this Department enjoyed the pleasure of assisting Mr. Bostwick as host to one hundred of San Francisco's grade school teachers. They were conducted through Potrero Station from generator room to compressor room and thence to Station "A."

At this time the Gas Manufacturing Department desires to extend a cordial invitation to any and all to visit the Potrero and Metropolitan whenever you care to do so. Bring your friends and Mr. McCarthy or Mr. Carson will either take you through themselves or turn you over to one of their able assistants who will be glad to show you everything, from the dock where the oil is delivered, to the compressor room where the finished gas is sent to the distribution mains.

In the near future Metropolitan Station is to install a Thomas meter for

measuring the gas made. The capacity of this meter will be 400,000 cubic feet per hour; the volume of gas measured will be automatically corrected to 60 degrees F and 30 minutes mercury pressure. The space occupied by the new meter will be about one-tenth that required for a wet drum station meter of the same capacity.

On March 1st, Miss Louise Aubert, chemist at the Potrero, is leaving "Pacific Service." Everyone regrets her going; the Gas Department loses an efficient chemist and Potrero Station a well-liked friend. It is said that Mr. William Losh of Washington, D. C., is the young man!

J. M. D.

#### GAS DISTRIBUTION DEPARTMENT NOTES

The Gas Distribution Department's G. M., to purchase and equip eight Fords, three 1-ton trucks, two model No. 15 White chassis and two 2-ton White chassis trucks, has been authorized, making the motorization of the department complete.

The prospects for a busy year are good. We have the authorization for 2,892 feet of new 6-inch main in Pacific street, between Franklin and Fillmore streets; 1,000 feet of 4-inch high-pressure distribution main in the Presidio Reservation; 3,500 feet of 12-inch high-pressure main in Ocean avenue, between San Jose and Plymouth avenues; 900 feet of new 6-inch main and replacement of 2,000 feet of 2-inch with 6-inch in Falcon avenue, between Casselli and Twenty-third streets.

Fred Fanselow, whose arm was broken while cranking a machine on Christmas Day, is mending rapidly and expects to report for work in the very near future.

E. G. C.

#### RECORDS BUREAU

Miss Estelle Tarantino had most of the girls of the Records Bureau on edge the other day when she exhibited a certain "something" on the fourth finger of the left hand. After receiving congratulations, Miss Tarantino, in answer to the many questions propounded upon her, exclaimed that the ring was the property of her sister.

C. F.

## *Journal of Electricity Celebrates Its Thirty-fifth Birthday*

In honor of the thirty-fifth anniversary of the Journal of Electricity and, also, to celebrate its enlargement into the Journal of Electricity and Western Industry, a dinner was given on the evening of February 1st at the Palace Hotel, San Francisco. Not only was it attended by a large gathering of the most prominent electrical men in the West, but it was truly a representative assemblage, including financiers, industrial leaders, professional men, men particularly interested in the development of California.

The affair was in the nature of a conference, the story of electricity being told from all sides. A great future for California in hydro-electric development was predicted and altogether the discussions proved to be most helpful and stimulating to all present.

Robert Sibley, editor of the Journal of Electricity, made the speech of welcome and acted as host in presenting the various speakers. Among the well-known men who spoke were John A. Britton, vice-president and general manager of "Pacific Service," who spoke on "Water Power and the West"; Dr. B. M. Rastall of the San Francisco Chamber of Commerce, who talked on "Industrial Research a Vital Factor in Substantial Growth"; E. S. Carman, president of the American Society of Mechanical Engineers, who discussed "The West a Factor in World-Wide Industry"; M. M. O'Shaughnessy, City Engineer of San Francisco, on "Civic Growth, Its Place in Industry"; C. F. Stern, State Superintendent of Banks, on "Finance and Industry"; E. O. Edgerton, former president of the State Railroad Commission, on "Helpful Utility Regulation, an Aid in Industrial Growth"; Franklin T. Griffith, president of the Portland Railway Light and Power Company, on "The Vision of the Industrial West," and David P. Barrows, president of the University of California, the subject of whose address was "Au Revoir."

In all the discussions was brought out the need for more and more hydro-electric development in California; how it would act and react to the benefit of

all industry and how the very growth of the State depended, in a large degree, upon the development of cheap electric power. The definite industries which would be directly benefitted were discussed in detail. Mr. John A. Britton, in his speech, reviewed the growth of hydro-electric power in the Golden State and pointed out that the development as reached today revealed it as just in its infancy. "I look to see California," said Mr. Britton, "with the growth in the last decade, a State of over twenty millions of people in the next twenty years. And the curve lines of the progress of the of the installation of hydro-electric power must keep pace with the development of population that surely follows cheap power. Industries follow in its wake. I can see that vision fulfilled to its utmost."

Dr. Rastall urged the need of building up the cities of the country as well as the industries that comprise them. He showed that the growth of the city and its industrial growth were parallel, "A great city," said Dr. Rastall, "and a great industrial condition can arise only out of a high level of material prosperity; it takes enormous sums of money to build our modern industrial and city fabric. Every social thinker has agreed that a high standard of living is absolutely essential to a rapid growth and progress, and that high standard of living must be based upon a general level of material prosperity."

That the men of America, men of vision, might well go out into the world and teach the world, was the opinion of Mr. E. S. Carman. He pointed out the relations of America to the great markets of the world and showed that the West was a great factor in the world's industry. "If America is to possess the marts of the world," said Mr. Carman, "who is going to go before? You cannot sell your goods in any country unless someone blazes the way, and that someone is not altogether the salesman. You have got to have more facts in selling the world. You have got to have the ability to win their confidence, and the ability not alone to sell, but the

ability to set up and to start to demonstrate that that which has been delivered will do that for which it was intended. And I hear a great call going up in America today—I can hear it on every hand—for men who have that vision that is so typical of you Western men; for men who dare to accept any challenge.”

City Engineer M. M. O'Shaughnessy in his discussion of civic growth and development paid a tribute to the founders of hydro-electric power in California when he said: “It was a pleasure to hear the reference of Mr. Britton to the early developments in California of electricity. He was very modest about the accomplishments made by himself and John Martin and Eugene de Sabla in 1895 when they started a little plant up in the mountains, and nearly three-fourths of the bankers and business men of San Francisco were laughing at them: they thought they were dreamers. I am very glad that we have dreamers of that kind in California, and that the crop is improving.

Finance and industry formed the subject of Mr. Stern's address. He showed the need for confidence and optimism in business circles. He touched on the need for more hydro-electric power development and said that in order to attract capital for such development it was necessary to have the confidence of the people who must supply the money. It was necessary to have co-operation.

Mr. E. O. Edgerton, former president of the California Railroad Commission, urged the need for public confidence in public service corporations. He pointed out that the “most energetic and, perhaps, the utility service which has expanded to the greatest degree and will have the greatest effect upon our growth in the West, is that which generates and distributes electric energy. There is one thing, and one thing only, that will get the money to finance the tremendous developments planned by this industry, and that is the confidence of the investor in the enterprise and his confidence in the authority of the State of California toward his investment. If he lacks that confidence, there is no power on earth to force that money into these enterprises.”

Mr. Franklin T. Griffith, in speaking of the progress of hydro-electric development in the West, paid a glowing tribute to Mr. John A. Britton for his life-long

work in this great industry. In dealing with the public he urged a policy of absolute frankness.

President David P. Barrows brought out that through the discovery and development of hydro-electric power the West had done much to overcome the depletion of coal and oil in Europe which was retarding its growth.

The speakers all agreed upon the need for more electric power. If the State is to grow as it should there must be more hydro-electric development. The speakers united in giving great credit to the Journal of Electricity for the part it has played in the up-building of the West. Those present at the dinner included:

Dr. Thomas A. Addison, I. W. Alexander, R. M. Alvord, J. H. Anderton, C. G. A. Baker, A. C. Balch, R. H. Ballard, R. A. Balzari, C. A. Banta, David P. Barrows, Frank G. Baum, Capt. Edward L. Beach, W. S. Berry, T. E. Bibbins, James B. Black, W. P. Boone, F. E. Booth, Henry Bostwick, Frank E. Boyd, W. H. Brackenridge, Samuel T. Breyer, John A. Britton, Dr. W. W. Campbell, E. S. Carman, Clyde L. Chamblin, D. I. Cone, C. L. Cory, W. E. Creed, Benj. Dailey, R. J. Davis, J. G. DeRemer, Charles J. Derleth, D. W. Dodge, Paul M. Downing, John S. Drum, W. G. Dutton, M. H. de Young, E. O. Edgerton, W. R. Edmonson, Albert E. Elliott, Edw. S. Elliott, Robert Eltringham, Charles K. Field, R. E. Fisher, Mortimer Fleishhacker, F. H. Fowler, W. H. B. Fowler, Ira Francis, Will J. French, John H. Gerrie, Emil Gough, Franklin T. Griffith, C. E. Grunsky, Roscoe F. Haegelin, W. W. Hanscom, D. E. Harris, H. R. Hatfield, C. B. Hawley, Carl Heise, C. C. Hillis, H. F. Jackson, Walter V. Jahant, Walter Johnson, Paul B. Kelly, S. M. Kennedy, W. G. Kerckhoff, F. A. Leach Jr., Charles H. Lee, S. J. Lisberger, W. J. Loring, Max Lowenthal, Burrell S. Manuel, C. D. Marx, David T. Mason, W. E. Meek, Wynn Meredith, C. W. Merrill, James K. Moffitt, J. H. McDonough, Floyd L. McElroy, John D. McKee, Paul M. McKee, Lee H. Newbert, G. C. Noble, E. L. Oliver, M. M. O'Shaughnessy, H. G. Peake, H. P. Pitts, Dr. B. M. Rastall, L. S. Ready, Paul G. Reddington, James W. Redpath, Leon J. Richardson, T. A. Rickard, Harris J. Ryan, Paul Shoup, E. O. Shreve, Tracy Simpson, C. F. Stern, Samuel H. Taylor, F. H. Thather, Clause Van Valer, W. G. Vincent, L. E. Voyer, F. L. Washburn, A. Emory Wishon, A. G. Wishon and J. E. Woodbridge.



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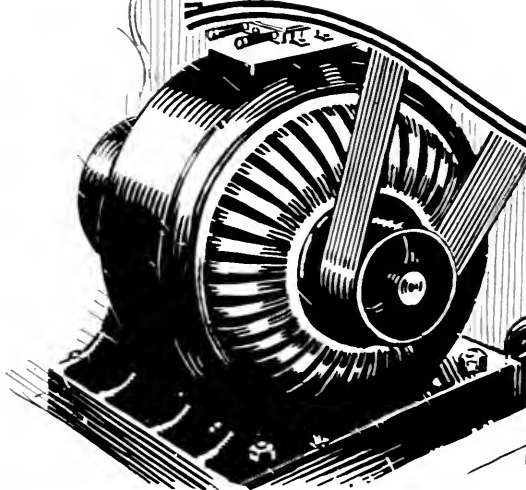
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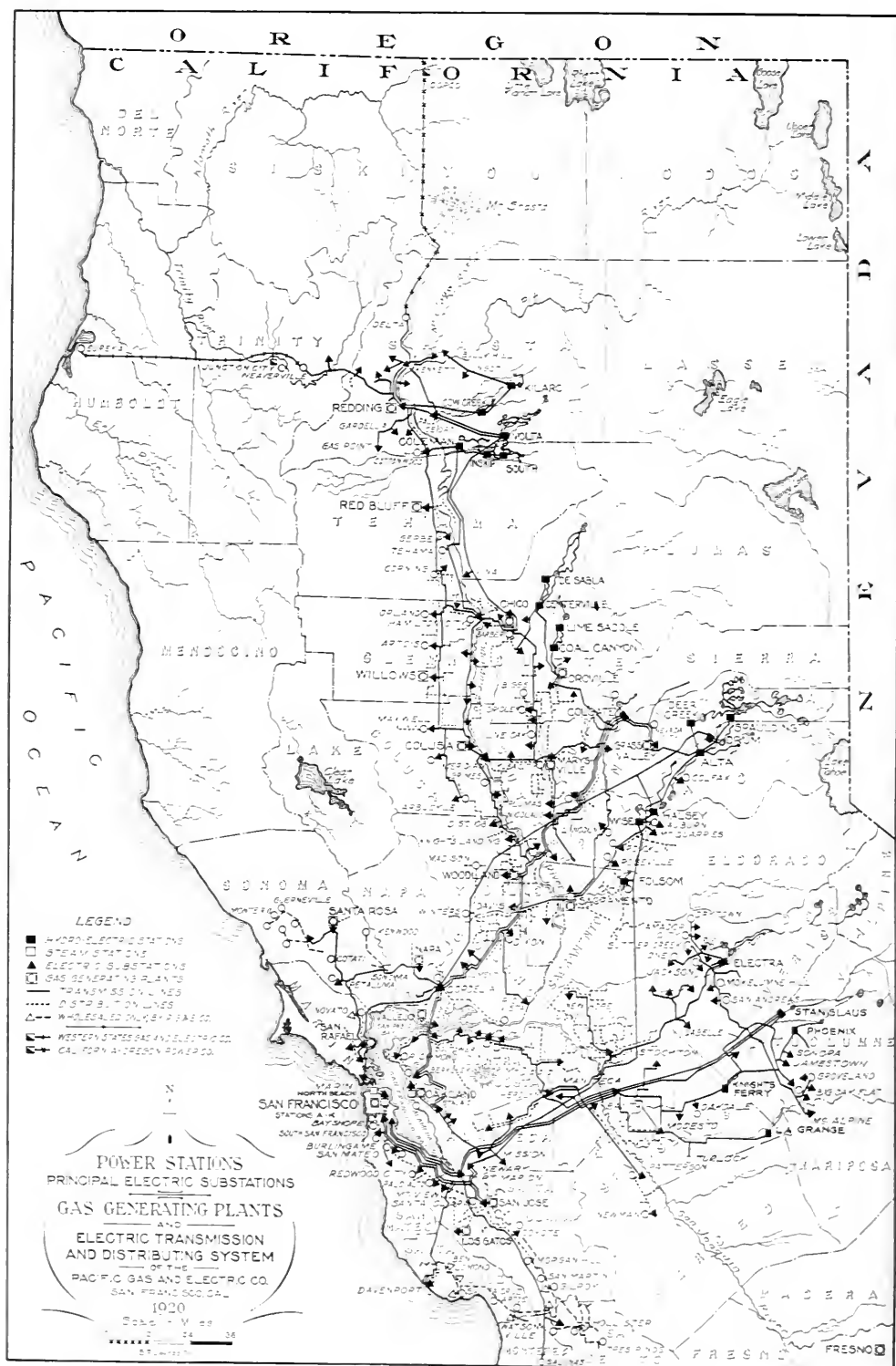
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	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>1</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	350	<sup>1</sup> San Pablo.....	500
<sup>1</sup> Albany.....	2,300	<sup>1</sup> Emeryville.....	3,000	<sup>1</sup> Mission San Jose.....	500	<sup>1</sup> San Quentin.....	2,500
<sup>1</sup> Alvarado.....	700	<sup>1</sup> Escalon.....	500	<sup>1</sup> Modesto.....	14,000	<sup>1</sup> San Rafael.....	6,000
<sup>1</sup> Alviso.....	550	<sup>1</sup> Esparto.....	250	<sup>1</sup> Mokelumne Hill.....	300	<sup>1</sup> Santa Clara.....	6,000
<sup>1</sup> Amador City.....	1,100	<sup>1</sup> Fairfax.....	250	<sup>1</sup> Monterey.....	6,500	<sup>1</sup> Santa Cruz.....	13,600
<sup>1</sup> Anderson.....	800	<sup>1</sup> Fairfield.....	1,000	<sup>1</sup> Morgan Hill.....	750	<sup>1</sup> Santa Rosa.....	11,000
<sup>1</sup> Angel Island.....	280	<sup>1</sup> Fair Oaks.....	300	<sup>1</sup> Mountain View.....	2,500	<sup>1</sup> Saratoga.....	300
<sup>1</sup> Antioch.....	2,000	<sup>1</sup> Fall River Mills.....	500	<sup>1</sup> Mt. Eden.....	210	<sup>1</sup> Sausalito.....	3,000
<sup>1</sup> Aptos.....	300	<sup>1</sup> Farmington.....	400	<sup>1</sup> Napa.....	6,500	<sup>1</sup> Sebastopol.....	1,950
<sup>1</sup> Arbuckle.....	700	<sup>1</sup> Felton.....	300	<sup>1</sup> Nevada City.....	2,900	<sup>1</sup> Shasta.....	500
<sup>1</sup> Atherton.....	250	<sup>1</sup> Folsom.....	2,000	<sup>1</sup> Newark.....	505	<sup>1</sup> Shellville.....	200
<sup>1</sup> Auburn.....	2,800	<sup>1</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950	<sup>1</sup> Sheridan.....	250
<sup>1</sup> Barber.....	500	<sup>1</sup> Fresno.....	48,867	<sup>1</sup> Newman.....	1,200	<sup>1</sup> Smartsville.....	300
<sup>1</sup> Belmont.....	375	<sup>1</sup> Gilroy.....	2,900	<sup>1</sup> Niles.....	1,000	<sup>1</sup> Soledad.....	600
<sup>1</sup> Belvedere.....	550	<sup>1</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400	<sup>1</sup> Soquel.....	400
<sup>1</sup> Benicia.....	2,400	<sup>1</sup> Gonzales.....	650	<sup>1</sup> Oakdale.....	2,100	<sup>1</sup> Sonoma.....	1,290
<sup>1</sup> Ben Lomond.....	800	<sup>1</sup> Grass Valley.....	5,200	<sup>1</sup> Oakland.....	225,000	<sup>1</sup> Sonoma.....	3,000
<sup>1</sup> Berkeley.....	65,000	<sup>1</sup> Gridley.....	1,800	<sup>1</sup> Oakley.....	200	<sup>1</sup> South San Francisco.....	3,750
<sup>1</sup> Biggs.....	500	<sup>1</sup> Grimes.....	350	<sup>1</sup> Occidental.....	600	<sup>1</sup> Standard.....	300
<sup>1</sup> Bolinas.....	200	<sup>1</sup> Groveland.....	250	<sup>1</sup> Orland.....	836	<sup>1</sup> Stanford University.....	2,600
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<sup>1</sup> Broderick.....	600	<sup>1</sup> Hamilton City.....	200	<sup>1</sup> Pacheco.....	250	<sup>1</sup> Suisun.....	800
<sup>1</sup> Burhngame.....	4,000	<sup>1</sup> Hammonont.....	500	<sup>1</sup> Pacific Grove.....	2,900	<sup>1</sup> Sunol.....	340
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<sup>1</sup> Campbell.....	700	<sup>1</sup> Hillborough.....	950	<sup>1</sup> Paradise.....	500	<sup>1</sup> Sutter City.....	250
<sup>1</sup> Capitola.....	275	<sup>1</sup> Hollister.....	2,500	<sup>1</sup> Patterson.....	500	<sup>1</sup> Sutter Creek.....	1,300
<sup>1</sup> Carmel.....	600	<sup>1</sup> Imone.....	1,000	<sup>1</sup> Penn Grove.....	300	<sup>1</sup> Tehama City.....	221
<sup>1</sup> Cement.....	1,000	<sup>1</sup> Irvington.....	800	<sup>1</sup> Penryn.....	250	<sup>1</sup> Tiburon.....	350
<sup>1</sup> Centerville.....	850	<sup>1</sup> Jackson.....	2,100	<sup>1</sup> Perkins.....	250	<sup>1</sup> Tracy.....	2,000
<sup>1</sup> Ceres.....	250	<sup>1</sup> Jamestown.....	600	<sup>1</sup> Petaluma.....	7,500	<sup>1</sup> Tres Pinos.....	300
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<sup>1</sup> Columbia.....	250	<sup>1</sup> King City.....	1,500	<sup>1</sup> Pleasanton.....	1,500	<sup>1</sup> Vina.....	300
<sup>1</sup> Colusa.....	2,000	<sup>1</sup> Knights Ferry.....	250	<sup>1</sup> Port Costa.....	1,000	<sup>1</sup> Walnut Creek.....	500
<sup>1</sup> Concord.....	850	<sup>1</sup> Knights Land.....	400	<sup>1</sup> Princeton.....	300	<sup>1</sup> Warm Springs.....	200
<sup>1</sup> Coram.....	666	<sup>1</sup> La Grange.....	260	<sup>1</sup> Red Bluff.....	3,530	<sup>1</sup> Waterford.....	300
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<sup>1</sup> Cotati.....	200	<sup>1</sup> Live Oak.....	300	<sup>1</sup> Rio Vista.....	1,000	<sup>1</sup> Willows.....	1,139
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<sup>1</sup> Crockett.....	3,000	<sup>1</sup> Loomis.....	450	<sup>1</sup> Rocklin.....	900	<sup>1</sup> Woodside.....	225
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<sup>1</sup> Elmira.....	350						

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 —Gas only.  
 —Gas and Electricity.

<sup>1</sup>—Gas, Electricity and Water.  
<sup>1</sup>—Gas, Elect. and St. Railways.  
<sup>1</sup>—Electricity and Water.

<sup>1</sup>—Electricity supplied through other companies  
<sup>1</sup>—Gas supplied through other companies.  
<sup>1</sup>—Water supplied through other companies.

### "PACIFIC SERVICE" FACTS:

Number of Electric Consumers..... 266,132  
 Number of Gas Consumers..... 286,542  
 Number of Water Consumers..... 16,234  
 Number of Steam Consumers..... 452

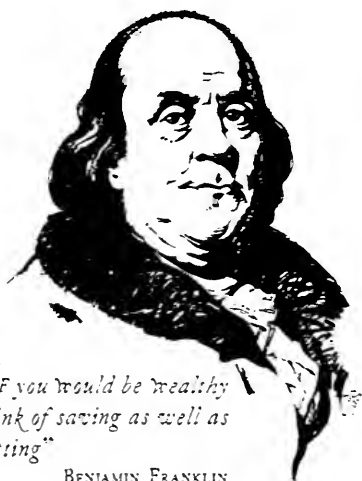
Total number of consumers..... 569,360

Operates 24 Hydro-Electric Power Plants.

Operates 4 Steam-Electric Power Plants.

Operates 20 Gas Plants.





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think of saving as well as  
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# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



A VIEW OF HAT CREEK ABOVE ITS JUNCTION WITH THE PIT RIVER

Vol.  
12

MARCH 1921

No.  
10

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# Pacific Service Magazine

Volume XII



Number 10

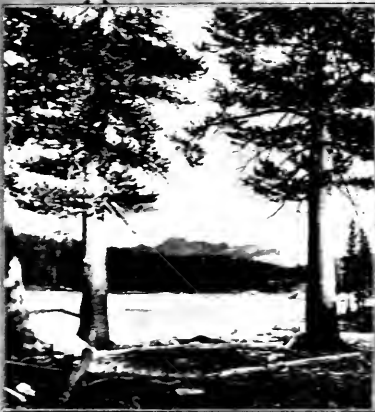
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Picturesque lakes in the "Pacific Service" territory, the shores of any of which are available for camping. Reading left to right, from the top down, these views show Lake Strawberry, east of Sonora; Lake Tahoeaud, above Electra; Lake Manzanita, near Mount Lassen; Lake Spaulding; Relief Reservoir; Lower Blue Lake, Alpine County; Lake Alta.

## *Attractive Vacation Spots Within the "Pacific Service" Territory*

By FREDERICK S. MYRTLE

"ALL work and no play makes Jack a dull boy." An old, hackneyed saying of our boyhood days and one to which we were apt to attach the broadest of meaning when the weather was unusually tempting and the truant spirit was strong within us. Nevertheless, the message it conveys is as true as the wisdom of the sage who first gave it utterance.

In our company's organization its truth is recognized, as witness our Pacific Service Employees' Association, with its schedule of home gatherings, out of town excursions, athletic features and general recreation program, all designed to afford our men and women employees an opportunity now and then to meet and play together in relief from the hard, every-day grind. Witness, also, the policy of the management in setting apart a period of the twelve-month during which those men and women may close their desks and hie themselves in search of change of scene and at-

mosphere in an all-too-brief vacation.

At the time of writing the snows are fast disappearing from the foothills and the glistening white of winter is replaced by the radiant verdure of spring. It is a glad season, for it is full of promise and we, in response to its call, feel our hearts glad with the joy of anticipation. For, despite all that has been said and sung about winter cheer the season that appeals most to old and young is the season of long days, balmy nights and all the fragrant glory that goes with sweet summertime.

So, now we are pleasantly confronted with the annual problem where to spend our annual vacation.

Most of us work in a city, and the



Bear Valley, below Emigrant Gap, within walking distance of Lake Spaulding.

thought of vacation presents to us a picture of wood and stream, of meadow and hill, maybe of beach. Our glorious California is so replete with attractions bountifully provided by nature that the choice is not easy. The newspaper columns are beginning to teem with suggestions from highway and byway resorts of all manner and description. To one so attracted the selection becomes largely a matter of inclination tempered

ment has consigned to innocuous desuetude.

In this country man works hard and, as a rule, plays hard—when he plays at all!—and the general disposition, when opportunity affords, is to throw aside the restraints of every-day life, with its restrictions of dress and general social observance, and to get down to nature, as it were, and live the part for awhile. It is to this latter class of workers that this article is addressed.

The writer has but one message to deliver. It is "pass your summer vacation within the confines of 'Pacific Service' territory." It is a message fraught with happy eloquence for it means that you, men and women employees, are given the privilege of choice among as goodly a collection of favored spots as could be found within any selected area on the Pacific slope. More than that, the management of our company wishes it distinctly understood that you are invited to do your vacation camping within our territory. The matter received consideration as far back as last fall when a special committee of our Employees Association was appointed to look up and report upon available camp sites. Two were chosen for official approval by reason of their unusual accessibility to employees not provided with automobiles; but it is to be understood that the choice of those two sites does not close the list, for to employees who are in-



The ditch at de Sabla near where the chosen camp site is located.

dependent of railroad or stage transportation there lies open the whole area of "Pacific Service" territory, north, south, east, west, taking in the river lands and foothills of the Shasta region, the peaks and canyons of the Sierra Nevada, the flowering valleys of the Sacramento and San Joaquin, the pine forests of Tuolumne, the lakes of Alpine; in a word,

by price. But, there are others of us to whom resorts, so-called, mean nothing, whose idea of rest from toil means some corner far from the madding crowd, with old clothes, camp outfit, tent pitched upon a clearing within easy reach of water and car parked under the trees where once browsed the horse and wagon that twentieth century develop-

every variety of scenic beauty that this wonderland of the West affords.

The two sites that have been referred to as bearing the stamp of official approval are Lake Spaulding and de Sabla. Each possesses unusual attractions, not only of scenery but of recreation features, and one is in perfect contrast with the other. Taking, first, Lake Spaulding, the visitor to that historic region finds himself breathing the atmosphere of pioneer days. Spaulding lies among granite peaks within hailing distance of the Sierra summit, where every eminence, every sheet of water, every valley has a history. From the shores of the lake the eye takes in Old Man Mountain, Signal Peak, Grouse Ridge, Flannery Diggings, each of these landmarks recalling memories of the rush for gold in '49, memories of privation, hardship, sudden wealth, the mingled sunshine and sorrow that made up the

life of those mad times. Within walking distance lies Bear Valley, underneath Emigrant Gap, where the overland teams crossed on their way to the mines of Nevada City and surrounding territory.

The locality is particularly inviting to the hiker, for there are enough interesting tramps within easy range to keep one going for fully two weeks. Spaulding lies at the southwest extremity of a chain of lakes, upward of a score in number, that are the combined sources of water supply for our South-Yuba-Bear

river development, and a number of these can be reached in a day's tramp. Across the dam and over the hills back of the north shore of the lake are found a cluster of three, Fuller, Rocker and Blue Lakes, well worth a visit. Then, if one is strenuously inclined, one may foot it a matter of twelve miles across country to the parent reservoir of the system, Lake Fordyce, and enjoy a chat with Ed Roening, a sturdy Norwegian who came there in 1874 and has made it his home ever since. Think of it! Forty-seven

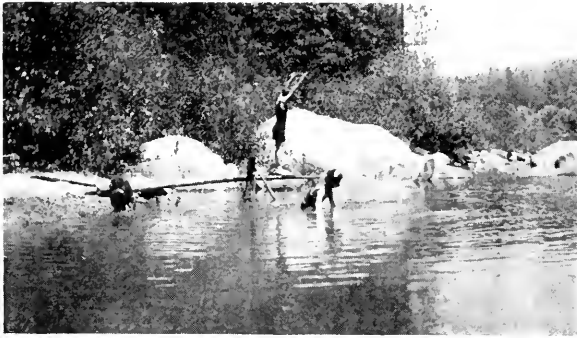


Butte Creek Canyon between de Sabla and Centerville Power Houses.

years alone in the wilds! Roening doesn't seem to mind the solitude; in fact, he enjoys it. His idea of a real jollification is to tramp into Cisco, the nearest point on the Southern Pacific railroad.

Another famous body of water farther away is Meadow lake, where once flourished a lively mining camp. Still farther on, beneath the Eastern slope of the Sierra summit, lies historic Donner, the scene of the tragedy of '46. Donner can easily be reached by auto and if one has no car one may take the train to Truckee from which point it is a three-mile ex-





Mr. C. E. Young's family enjoying a swim in Deer Creek.

cursion. That, of course, is outside the "Pacific Service" boundaries.

There are other scenes of interest around Spaulding. There is Chubb lake, a picturesque little body of water that lies a couple of miles back of Smart mill. Then, over the ridge that divides the valley of the South-Yuba from the American river canyon lies Lake Valley, another piece of property owned and controlled by "Pacific Service."

In the way of sport, there is good fishing at Lake Spaulding, which lies 4,700 feet above sea level, and at the right season of the year there is good shooting over the hills. The transportation problem is easy of solution. The little station called Smart is in the snow sheds on the overland line of the Southern Pacific, and at least one, if not two trains a day stop there. From Smart the descent into the camp is less than half an hour's tramp. The way into Spaulding by road lies through Auburn, Colfax, Dutch Flat, Alta, to Emigrant Gap, where you leave the Lincoln Highway and descend the hill into Bear Valley. It is all very easy of access. At the camp by the lake the company is provid-

ing tent platforms and water connections. There is plenty of wood.

The camp site at de Sabla is in the Butte County hills, about 23 miles northeast of Chico. The road from the latter city lies through Centerville and Nimsheew and rises 2,500 feet above Butte Creek canyon amid scenery of a most romantic description. There is also a way by train from Chico through

Paradise to Magalia, from which point one must drive about five miles. There is also a daily stage to and from Chico, and a daily mail. The camp location is on the borders of the reservoir at Camp 1, on the top of the hill above the powerhouse, and near the point where the ditch carrying water from the head dam empties into the reservoir. It has a picturesque setting of pine forest, where sunrise and sunset are worth traveling miles to see. It is of lower altitude than Spaulding, being 2,800 feet above sea level, but it has all the health-giving properties of a perfect climate. The fishing in the reservoir is excellent. Division Manager Adams says he will vouch for the hunting.



Lake Alta, a popular summer vacation spot.

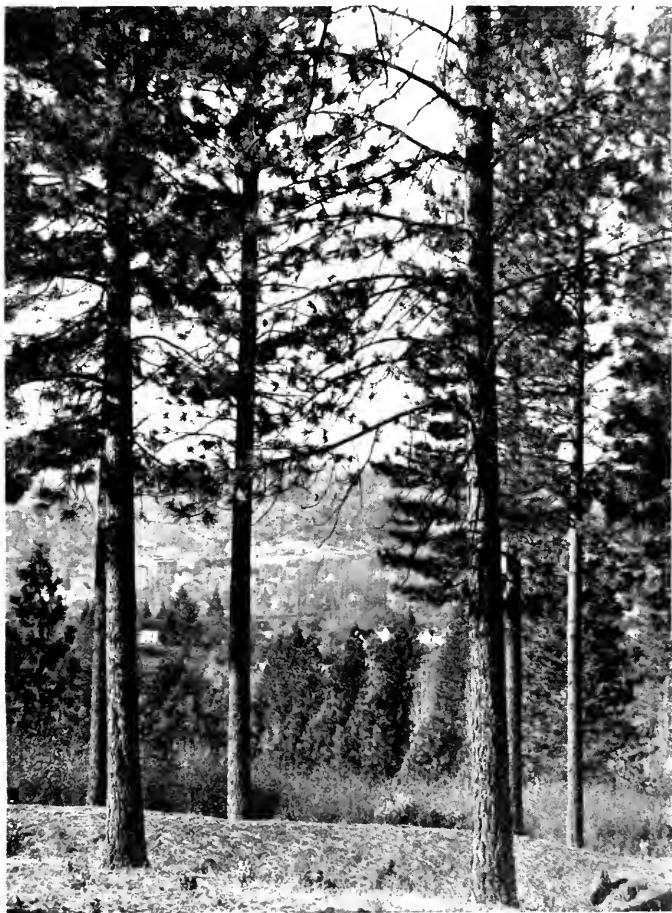
de Sabla will suit the less strenuous person better than Spaulding, for the walks do not involve such long distances. But, if one is so inclined one may tramp for miles along the banks of Butte ditch, and in the canyon 1,600 feet below lies the power house from which stretches the Centerville flume to afford amusement for the enterprising. For those able to solve the transportation problem the points of interest, in addition to de Sabla and Butte Creek canyon, include the Western branch of the Feather river and the Diamond Match Company's saw mill, the latter located about five miles from the camp site. In addition, there are a number of old mines clinging to the slopes of Butte Creek canyon well worth a visit; one of these bears the blood-curdling title of "Robber's Roost." The fishing places include Butte Creek, the west branch of the Feather, little Butte Creek and de Sabla and Magalia reservoirs.

As at Spaulding the company is preparing to afford camping facilities in the way of tent platforms, etc. There are several stores close by which will deliver groceries to the camps whenever ordered.

So much for the already designated camp sites. These are treated here somewhat briefly for the reason that they are so well known to each and every member of our "Pacific Service" family. Each has been the scene of one of our out-of-town gatherings. Hun-

dreds of our men and women have lingered by the reservoir at Camp 1 and have waded knee deep through the snow at Spaulding. But there are other sites about which more should be said for they are not so well known.

From Colgate Division chairman Geo. Johnson of that section of the P. S. E. A.



A peep at Grass Valley from the grounds of the Empire Mine.

sends me the following:

"For the angler, the huntsman and the camper, the wilds of Colgate division are unsurpassed, offering scores of charming spots to pitch tent and enjoy a real outing amid stately forests, along clear cold streams in the valleys of the Sierra Nevada mountains. For the motorist these spots have additional charm

as they are accessible by automobile during the late spring and summer when nature specially favors the hill country.

"One of the most delightful fishing grounds in the State is at Strawberry Valley, not far distant from Colgate power house, the center of some ten mountain streams which abound with trout. To reach Strawberry take the State highway direct to Marysville, continuing north along the new District 10 highway to Honcut, Bangor, Rackerby, Browns-

shines with cleanliness. Those acquainted with the hospitality at Strawberry will always tell you of the huge bowls of wild strawberries and blackberries which adorn the dinner table at the Strawberry Valley Hotel.

"There are no camp grounds for rent at Strawberry, but acres of green meadow land are free to the camper.

"Due to the efforts of the Yuba-Sutter Fish and Game Association and its efficient secretary, County Treasurer Harvey Eich of Yuba County, the many streams around Strawberry Valley, Indian Valley and Woodleaf have been stocked with trout each year, providing a never-ending supply.

"With one's headquarters at either Strawberry or Woodleaf, Woodleaf Creek, Grizzley Creek, Hampshire Creek, Orleva Creek, Lost Creek and its tributaries, Sly Creek and Deadwood Creek are within easy reach.



Brown's Valley and the old Power House that once supplied Marysville with electric light.

ville, Woodleaf and Clipper Mills, through miles of verdant woods. After reaching Honcut the ascent to the hills commences. Here the roads are of the dirt variety, but are said to be surprisingly smooth and passable during the summer season.

"At Strawberry Valley as well as Woodleaf hotel accommodations are unsurpassed, and are noted the State over for the excellence of their meals. Mr. and Mrs. Joel Bean of Strawberry are the most charming host and hostess one would care to meet, and their little inn

Each of these streams has been stocked with several varieties of trout among which are rainbow, the native variety; Loch Leven, Eastern brook, steel head and a new imported specie known as the German brown trout. Early in the season, from May 1st until around July 4th, fly fishing is excellent. It is not a matter of luck in this territory whether your catch is large, but more a matter of merely being on the job.

"Bait fishing is enjoyed in these streams after July 4th until the close of the season.



View on the Stanislaus River, Middle Fork.

"Especially noted for the excellence of bait fishing is Canyon Creek reservoir, 15 miles east of Strawberry. Mr. Eich estimates that no less than 2,000 trout were taken from that particular spot during one short season last year. The size of the fish caught here averages from seven to ten inches.

"An added attraction to the region around Strawberry and Woodleaf is the luxuriant timber growth. Virgin forests cover the hills and canyons in this locality, even though several saw mills are operating in the vicinity. An excursion through a mountain sawmill is an interesting one and the foremen of these mills are always glad to receive visitors. Those interested in exploration will find enjoyment in going over the ruins of abandoned gold mines which abound in the hills of Yuba County.

"Taking another route following the State highway through Grass Valley, or from Marysville to Camptonville, Indian Valley is a worth-while objective. Camptonville offers the nearest hotel accommodations, but the camping is considered surpassingly fine. It is here that the Timothy meadows are found. The fine, sweet smelling Timothy grass covers thousands of acres near Indian Valley and provides excellent camp ground. It was at Indian Valley that the Yuba-Sutter, Colusa and Oroville Y. M. C. A.

camps were held in 1920. Swimming, fishing and hunting are the chief attractions.

"Trout are to be caught in all adjacent streams at all seasons, deer is plentiful and the scenery gorgeous. The drive to Indian Valley along the newly completed State highway lateral vies with the Feather River canyon for stupendous scenery. The Yuba River winds like a silver ribbon far below the highway, which is bordered by tall pines and firs on either side."



The deciduous fruit country around Auburn possesses pastoral charm.

The pine forests of Tuolumne have been referred to. Following is an excellent program contributed by Mr. M. C. McKay, who knows every inch of the territory from Manteca to the farthest point on the Mono highway above Relief reservoir. He writes:

"This region is a very attractive one, being a country of magnificent scenery, very wild and rugged, but with many stretches of comparatively level meadow land affording ideal camping sites.

"ROUTES.

"(1) *By auto*—

"Take Creek Route Ferry to Oakland, out Broadway to Fourteenth street, follow Lincoln Highway signs to Foothill Boulevard. The route then passes through Hayward, Dublin, Altamont, Tracy, Manteca to Salida. Leave the main State highway at Salida and follow concrete road through Riverbank to Oakdale. From Oakdale follow recently completed highway to just beyond the old town of Knights Ferry. From here to Sonora there is a good dirt road except where the construction work of the new highway is being carried on, where the detours are likely to be rough. Sonora affords good hotel accommodations and is an interesting town in which to spend a few hours. From Sonora, follow Mono Highway which is a fair dirt road through Confidence, Sugar Pine, Long Barn, Cold Spring to Strawberry. (Right-hand fork, near Strawberry, to Pine Crest Hotel).

"From Strawberry to Kennedys Meadows there is only the one road which is usually in excellent condition, although a few steep pitches are encountered. Shortly after passing through Bakers Station (which may be recognized by the presence of two small tool shacks with steep pitched roofs), a fork of the road will be encountered. Left fork

goes to Bridgeport, Mono county, and is in very bad condition—take right-hand road to Kennedy Meadows. Automobiles cannot get to Relief Dam, which lies about two miles above the Meadows.

"TABLE OF APPROXIMATE DISTANCES:

MILES.	PLACE.	ELEV.	ROADS.
0	San Francisco	10	
6	Oakland	10	Auto Ferry
85	Salida	30	Paved Highway
110	Oakdale	120	Paved Highway
135	Knights Ferry	500	Paved Highway
160	Jamestown	1500	Good dirt road
165	Sonora	1875	Good dirt road
175	Confidence	4200	Fair
180	Sugar Pine	4500	Fair
185	Long Barn	5000	Very rough
188	Cold Spring	3500	Fair
193	Strawberry	5240	Fair
197	Cow Creek	5770	Good
207	Niagara	6640	Good
214	Brightmans	5430	Good
218	Douglas	6080	Good
219	Bakers Station	6265	Good
223	Kennedy Meadows	6400	Fair

NOTE—Roads 4,000 to 5,500 ft. elevation open about June 1st. Roads above 5,500 ft. elevation open about July 1st.

"(2) *By Rail and Stage*—

"Take S. P. at Ferry, buy ticket to Sonora. Train leaves 8 a. m., arrives Sonora 4 p. m. At Sonora remain over night—Strawberry auto stage leaves three times a week. There is no stage line running above Strawberry.

"HOTEL ACCOMMODATIONS—

"*Strawberry Hotel*—Located on the South Fork of the Stanislaus River on the Mono Highway. It consist of a number of cottages providing sleeping accom-



View on the Pit River, near Big Bend.

modations and a central dining room. Meals are of ample proportions, well cooked and served in "family" style. For rates and reservations write Mrs. R. Conlin, whose address until about June 1st is Columbia, Calif., and after June 1st is Strawberry, via Confidence, Calif.

*"Pine Crest—*

"Situated on Lake Strawberry, two miles from the main highway. More modern buildings than the Strawberry Hotel with rates slightly higher. There are several cottages in addition to the accommodations in the hotel proper.

"For rates and reservations write (after June 1st):

Hotel Pine Crest,

Pine Crest, via Sonora, Calif.

*"Douglas—*

"Situated on the head waters of the Stanislaus, near Kennedy Meadows. This resort can not be termed a hotel. It consists of a number of small tents provided with cots, which provide accommodations for a limited number of guests. Meals may also be obtained.

"For information write Mrs. Nelson (before June 1st), Knights Ferry, Calif.; (after June 1st), Douglas Station, via Confidence, Calif.

"None of the above resorts will open until at least the first of June as the roads will not be open until that time.

*"CAMP SITES.*

"Good camp sites may be found almost anywhere on the route as soon as the higher elevations are attained. Those preferring the



Falls of Relief Creek Below Relief Reservoir.

forest regions will find the country about Strawberry the most interesting which is heavily wooded.

"Particularly attractive sites are:

Niagara,

Brightmans,

Douglas,

Kennedys Meadows.

"Water and wood are to be found anywhere. The forest rangers at the Cow Creek and Brightmans Ranger Stations will gladly direct campers to suitable sites.

*"FISH AND GAME.*

"Trout fishing is good in the Middle and South Forks, also in the lakes. There are deer, quail and a few grouse in the back country.

*"POINTS OF INTEREST.*

"Lake Strawberry—Storage Reservoir on the South Fork, Stanislaus River. Largest storage reservoir on the Sierra system. Rock fill dam with concrete face upstream—capacity 17,900-acre feet. Boats may be rented from Pine Crest.

*"Donnels Flat—*

"Narrow, precipitous gorge in the canyon of the Middle Fork, Stanislaus River. Proposed reservoir site.



Upper Relief Valley on the way to Relief Reservoir.

*"The Dardanelles—*

"The region about the Dardanelles peaks is one of the wildest and roughest in California.

*"Relief Reservoir—*

"Reached by foot or saddle horse only. Storage reservoir on Relief Creek—capacity 15,000-acre feet. Elevation above sea level, 7,200 feet.

*"Kennedy Lake—*

"Six miles above Relief; excellent trout fishing.

he will furnish as many suggestions for camp sites as will satisfy any and every taste. There are the banks of the Pit, the Fall river, Hat creek, Burney creek, Rising river and the beautiful stretch of meadow land that surrounds the community of Fall River Mills. Miles and miles of comparatively unimproved country, and all of it of a most inviting description, with every convenience of wood and water. Here, of course, an auto is a necessity, for the only approach



View of Hat Creek Valley, in the Pit River region of Shasta County.

*"SUPPLIES FOR CAMPERS.*

"Supplies and gasoline can be obtained at:

Sonora,  
Confidence,  
Strawberry Hotel,  
Douglas Station."

At the northern end of our "Pacific Service" territory lies the watershed that nurtures the Shasta region, with Mt. Shasta at one end and Mt. Lassen at the other. In the section of country between these two peaks is the best water of any in the "Pacific Service" area. Last November, I described the Pit river region and dwelt at that time upon the possibilities of its use for vacation purposes. Division Manager Milford writes me that if any inquiries are made of him

by railroad is from Sisson, through McCloud to Bartle, from which point one must travel thirty miles or so to get anywhere; but it is all worth while and when one has visited that region once one longs to return.

There are two automobile roads in there. One runs from Redding through Ingot, Round Mountain, Montgomery Creek and Burney, and the other from Dunsmuir through McCloud and Bartle.

At the south end of this watershed lies the Lassen territory. There the vacation spots lie in the canyons of North and South Battle Creek, or by the shores of the company's reservoirs, one of which, Lake Manzanita, lies within but a few miles of Mt.





View on Hat Creek showing Burney Mountain.

Lassen, and from which have been obtained the best pictures ever taken of that volcano in eruption. The way in there is from Redding or Red Bluff, according to choice. Personally, the writer can imagine no more restful camping spots than are to be found here and there in the miniature canyons that follow the course of South Battle Creek. The power houses themselves in that system are objects of interest from the very scenic beauty of their surrounding, and the fishing is simply gorgeous. I was up there last September with Mr. Milford and we stood on the bank of a stream beside Coleman power house and watched a big salmon floundering about in water not deep enough to hide him. The streams are chock full of both salmon and trout and, as for game—well all I can say is that I took

a peep into Mr. Milford's larder at Inskip when I was there and I beheld a sight that would have gladdened the heart of the chef of the Waldorf-Astoria. I heartily recommend this Lassen country. The roads are rough, so much so that you can travel a lifetime up there without ever running danger of arrest for speeding, but that region affords more recreation and honest sport to the square mile than any other I have seen in "Pacific Service" territory.

Chairman Dunshee of the Fresno Division Section writes inviting consideration for that sec-

tion of fruitful country. He mentions such popular places as Huntington Lake, General Grant National Park and Sequoia National Park. He writes that these three places are all in the Sierra Nevada mountains and within a half-day's auto drive from Fresno. He adds that he regards it unnecessary to go into details concerning these places because they are so well known.

From cozy Marin, Vice-Chairman Kelly of North Bay Section reports the follow-



Mount Lassen in eruption is a sight worth going miles to see.



ing as worthy of consideration:

*"Mt. Tamalpais and Muir Woods—* Reached over the 'crookedest railroad in the world,' which forms a complete double bow-knot half way up the mountain. At the top is the Tamalpais Tavern, which is noted for its fine appointments.

*"Muir Woods is a wonderful natural forest of giant redwood trees at the base of Mt. Tamalpais, which was presented to the Government as a national park by the late John Muir. Some of the largest trees in the world are in this group. Muir Woods Inn caters to the visitor in the way of refreshments, but there are no permanent accommodations.*

*"Mt. Tamalpais is reached from Sausalito Ferry, via Northwestern Pacific to Mill Valley, thence, via Mt. Tamalpais and Muir Woods Railway up the Mountain to the Tavern. Muir Woods may be*

reached by gravity car from the Tavern, which trip is a thrilling novelty.

*"Bolinas and Willow Camp—*Willow Camp is also popularly known as Stinson Beach. This is a fine sandy beach located on Bolinas Bay, which is growing each year in popularity. Located at the end of the Dipsea trail from Mill Valley, it is the scene each year of the big race staged from Mill Valley by the Olympic Club.

*"The accommodations consist of the Airey Hotel, which will take care of approximately 50 people. There are also numerous cottages to be rented, as well*

as tents on the beach during the summer season. Rates about \$20 per week, including use of stove and dishes in cottages.

*"At Bolinas, very close to Willow Camp, there are accommodations at the Lawrence Hotel and Bolinas Hotel, which will care for about 60 persons. One of the attractions in the vicinity of Bolinas is the station of the Radio Corporation of America, one of the largest wireless stations in the world.*

*"The most favored time of the year*



Trestle Glen, near Oakland, much favored by summer campers.

to visit Willow Camp or Bolinas is about September and October, although the place is popular from May to November.

*"Both of these places are reached, via stage from Sausalito, or by automobile over dirt roads from either Sausalito or San Rafael.*

*"Inverness—*Noted for its fine beach, bathing and fishing. Located near Pt. Reyes; one of the points of interest is the Point Reyes lighthouse, which protects this dangerous spot on the ocean. The country in this vicinity is heavily wooded, and there are many nice camp-

ing spots among the trees, where wood and water are available. In the town of Inverness there is the Inverness Hotel, which will accommodate about 60 people. In addition a number of guests are able to secure rooms with private families during the summer season.

"The best time of the year to visit Inverness is June to September. It may be reached from Pt. Reyes by stage—San Francisco to Point Reyes, via Northwestern Pacific, Sausalito Ferry.

"*Dillon's Beach*—A fine beach where swimming, boating and fishing may be enjoyed. There are many fine camping spots in this vicinity, as well as cottages on the beach. Reached by stage from Tomales, to Tomales via Northwestern Pacific. Best time of the year, June to September.

"The above represents the spots the public knows about, but throughout Marin County there are many nooks where camping is permitted and where a vacation might be enjoyed. Owing to the nature of this country, particularly through Larkspur, Kentfield, Ross, Yolla, Landsdale, etc., which is wooded and green all summer, these places are very popular with San Francisco people, who each year summer in Marin."

In describing Spaulding the Sierra Nevada region has been referred to. As a matter of fact, there are attractive camp sites along the entire line of the Southern Pacific from Auburn up, and one may branch off at Colfax and run through to Nevada City, a most attractive mining camp which lies four miles apart from its sister camp, Grass Valley. Mr. C. E. Young, in an article which follows this, recommends a sojourn by the banks of Deer Creek, which lies fifteen miles east of Nevada City.

Speaking of Nevada City and Grass Valley puts me in mind of another pair of mining camps, those of Sutter Creek and Jackson, which lie in the foothills of Amador County, within a short distance of each other. Four miles from Jackson

the way leads down to the Mokelumne River, upon which our Electra power plant is located, and there are beautiful camping grounds around here. On the hillside above Electra lies Lake Tableaud, the main reservoir of the system, which is yearly the scene of summer camping parties. The nearest railroad point to this is Martell, at the farthest extremity of the road from Galt through Ione. To those possessing autos the highway is excellent all the way from Stockton.

Connected with the Electra system is a chain of lakes known as Blue Lakes, in Alpine County. These may be reached in two ways. One way lies from Jackson out through Silver Lake and Bear reservoir, but the more popular way is over the Sierra summit on the Placerville grade and turning to the right upon reaching the flat near Meyers leads through Hope, Faith and Charity valleys and over Border Ruffian into Blue Lakes. It is a long way off and, of course, can only be done by auto, but it is well worth while. Camping parties have been going in for many years now and they don't seem to get tired of it. Our company's lake tender at Lower Blue Lake is in a position to help make things comfortable.

The foregoing may be regarded as the high spots of the various camp selections in our "Pacific Service" territory. They deal, especially, with the *dolce far niente* that is the aim and object of the true vacationist.

My correspondents in San Francisco and Oakland, however, write me that as the toiler in the city hies him to the mountains for recreation so, on the other hand, the toiler in the mountains may be expected to yearn for the coast by way of contrast to the daily routine of life. The following points of interest are given by Chairman Johnson of San Francisco section by way of recommending the Western metropolis:

"*Points of interest*—Largest oil gas plant in the world. Largest steam gen-

erating plant on the Pacific Coast owned and operated by the Pacific Gas & Electric Company, also headquarters of same at 445 Sutter street. Marina Flying Field. United States Mint. Sutro Baths, most commodious in this country. Theatrical attractions, second only to New York. Mercantile stores the same. Incomparable Golden Gate Park. Baseball every day in the season. Golf links finest and most accessible on the Coast. Hotels to suit any purse or demand."

Our Oakland correspondent observes:

"The Hotel Oakland is one of the leading hotels in the West and, besides, there are a number of moderate priced hotels and a large number of first-class apartments to choose from.

"There are a half-dozen high-class moving picture theaters, several vaudeville theaters, including the Orpheum and our Auditorium Theater where the best plays can be seen.

"Lake Merritt, a beautiful salt water lake, situated in the heart of Oakland, with beautiful parks and residences lining its shores, furnishes an ideal place for those who love to go rowing. There is a municipally-owned boat house where all kinds of boats can be rented.

"Besides the large indoor salt water bathhouses in Oakland, the Alameda beaches within thirty minutes' car ride from the center of Oakland furnish an ideal place for swimming.

"Oakland is famous for its large natural parks and its fine playgrounds. Idora Park, a large amusement park, attracts people from miles around. It is another Coney Island, only not on an island.

"For those who have autos Oakland's fine broad streets, beautiful boulevards and mountain drives can not be surpassed. The skyline boulevard is one of the most beautiful scenic drives in the United States.

The cool climate of Oakland will be appreciated by those from the hot valleys.

"The City of Berkeley, with its University of California, offers a wonderful list of advantages as a vacation place."

In conclusion, let me recommend any employee of "Pacific Service" who may desire further particulars about any one of these suggested locations to apply to Mr. C. E. Young, chairman of the vacation camp committee of our Pacific Service Employees' Association, or to the manager of the division of our territory in which the particular site is located.

#### HINTS FOR A VACATION CAMPER

By C. E. YOUNG

Experience is a wonderful teacher and has taught many a camper that the joy of a camping trip is handed out by installments. The first and greatest pleasure is found to be in the planning and anticipation of the trip; second is the actual camp life itself, and third, the pleasure of telling your friends all about it on your return. Take an experienced camper's advice if you have such a move in mind and begin planning early; make the trip snappy and have a long story to tell on your return.

Those who are not experienced in camp life should bear the following hints in mind:

Make your kit as light as possible. The grub, skillet and coffee pot should be handy for quick action. Keep the larder well supplied, never carry cots, sleep on the ground; but, if you are past 40 take a mattress. Never build a big fire for cooking, a few red-hot coals will do the work and avoid smoke and smut. Always extinguish your fire with water or wet dirt before you leave it. Never leave an untidy camp, it shows evidence of poor training.

Any one is welcome to camp on the Government Forest Reserves. The permit is free, but you must respect all of the rules and regulations. Take maps of the National Forest Reserves with you. They are instructive. Get acquainted with the Forest Rangers. They are good

fishermen and good hunters. Following is a camp outfit for five:

Table knives, 5; table forks, 5; tea-spoons, 5; plates, 5; saucers, 5; cups, 5; long-handle spoon, 1; long-handle fork, 1; pans (for dishing up), 2; dish pan, 1; fry pans (long handle), 2; stew kettles ( $\frac{1}{2}$ -gal.), 2; butcher knife, 1; canvas water pail (2-gal.), 1; can opener, 1; coffee pot, tin not soldered (1-gal.), 1; dutch oven, 1; flash lights, 2.

To the foregoing may be added: Wash basin, pepper and salt boxes, oilcloth for table, shovel, saw, hatchet, canteen (2-gal.), 8-inch file, whetstone, rope and twine, assorted nails.

Following are rations for five for two days: Fresh meat, 10 pounds; canned meat, 6 pounds; bread, 8 pounds; crackers, 4 pounds; flour, 5 pounds; baking powder,  $\frac{1}{2}$  pound; lard, 1 pound; sugar, 4 pounds; syrup, 1 quart; coffee (ground), 2 pounds; tea,  $\frac{1}{2}$  pound; milk (canned), 3 cans; butter, 2 pounds; fruit (canned), 6 pounds; beans (canned), 4 cans; potatoes, 10 pounds; onions, 1 pound; tomatoes (canned), 3 cans; cheese, 2 pounds; pickles,  $\frac{1}{2}$  quart; bacon, 2 pounds; salt, 1 pound; pepper,

2 ounces; soap, 2 bars; dishtowels, 3; face towels, 5; matches, 1 box. Total weight 140 pounds.

Make it a point when on the travel to pitch camp by 5 p. m. or earlier in order to get your meal over and beds made down before dark.

Don't be afraid of rattlesnakes. They will get out of your way if you give them a chance.

If you want to enjoy a real restful camp out, go to Camp No. 1 above De Sabla Power House. You will find plenty of good fishing and points of interest there.

If you want to see some action in the way of real construction work, go up on the Pit River.

If you want a real rough time and good lake fishing with fine scenery, go to the P. S. E. A. camp ground at Spaulding.

If the children are too small to camp or the women folks are too fussy, rent a furnished house at Nevada City where rent is cheap, vacant houses a plenty and all the conveniences of home afforded. You will enjoy a daily swim in the tepid waters of Deer Creek.



# *The Relation of Water Power to Industrial Development in California*

By W. E. CREED.

*The following is the second of a series of short papers by our company's president on matters vital to the public service, particularly the problems in whose satisfactory solution the public service corporations and the public they serve are mutually concerned.—EDITOR PACIFIC SERVICE MAGAZINE.*

Industry is the best guarantee of the permanence and prosperity of a community, a State or a nation. It means creation of wealth, profitable employment, and free flow of capital in trade.

Many factors aid in industrial development, but of all factors, population and power are indispensable. Population furnishes the labor supply and the immediate local markets, but population will not alone suffice. In modern times, no great industrial structure can exist without power. It must be available to turn wheels, to transport goods and to render countless other services to industry.

The possession of raw materials, while not essential, is nevertheless a great stimulus to the development of manufactures. All the nations of Europe are densely populated, and the world war disclosed the great importance these nations attached to power and raw materials, particularly to the sources of power to be found in oil and coal. They know that with population and cheap power, industrial development is certain even without raw materials, as great masses of people must secure raw materials either in manufactured form or in the raw State to be manufactured, and usually the course is for raw materials to be manufactured into usable products at centers of population regardless of the place of origin. But if in addition to population and power, raw materials are also at hand, the most favorable conditions exist for manufactures to develop and flourish.

California has in the last ten years made a great gain in population. In addition, it possesses most of the basic raw materials necessary for manufacture. The third thing needed by California for unrestricted industrial development is power.

A brief survey of the history of manufactures in California discloses that prior to 1900 the State was comparatively unimportant as a manufacturing State, but that it now produces more

manufactures than all the other western States combined. This remarkable improvement in industrial position is directly traceable to the California oil industry, which began about twenty years ago to furnish cheap oil, from which cheap power could be developed. In the past, fully 60 per cent of the power used in California has come from oil. The supply is limited, and every barrel of oil used decreases the available supply. As a result, the oil industry is carrying a burden beyond its capacity and must be relieved.

California has no coal supply of good quality. The old days of 40-cent oil are gone. The only sound solution for the power needs of California lies in the development of hydro-electric power. There is no cheaper power available, and if the development of water power proceeds unhindered, it will be the impulse for a wonderful economic growth in the State, from which will come further great gains in population and wealth. The advantages will accrue not only to the large centers of population but to every part of the State. Markets for the product of the farmer will increase, and money available for investment in and development of agricultural lands and communities will be abundant.

The extent to which California can develop industrially with adequate water power is almost without limit. Its geographical position on the Pacific gives it opportunity for trade with Pacific countries, its population affords the necessary local markets, and it possesses nearly all the basic raw materials. They may be roughly classified as lumber and forest products, agricultural products, fisheries, and mines and minerals including petroleum. These materials for manufacturing, of which perhaps the most important is the product of agriculture, place the State in a position, having cheap power, to develop and extend most advantageously the

packing, canning, preserving, milling, lumber, chemical, fabric, leather and metal industries, and a long list of secondary industries.

The question naturally occurs whether the State of California, having the great advantage of population and raw materials, is in a position to develop the necessary hydro-electric power. There is no question at all that favorable physical conditions exist. What is most needed is the co-operation of the public and an understanding by the public of what the development means in order that it may be stimulated and encouraged.

Careful studies indicate that there is possible of development in hydro-electric power in California 9,250,000 horse-power, of which only 942,000 horse power (a little over 10 per cent) is thus far developed. The potentiality of the State for power development is relatively strong. The total maximum horse power in water in the whole United States is 59,369,000 and in the 11 western States is 42,850,000. California thus possesses about 15 per cent of the total possible hydro-electric development in the entire country, and about 23 per cent of the possible hydro-electric development in the West.

The power companies of the State are not unmindful of the need for power. The combined construction programs of all the California power companies contemplate the development of about 2,000,000 horse power in the next ten years. This development, if carried out, will require an expenditure of \$500,000,000 to \$800,000,000 during the period of construction. Probably \$600,000,000 is a close estimate of the amount of new money required.

Will this amount of power be necessary? If growth continues in the future at the same rate it has in the past, the State will require about 100,000 horse power additional each year. If, in addition to taking care of the normal growth and development based upon the rate of progress in the past, the water power companies are to relieve the oil industry of some of its burdens in order to reduce the cost of power and pre-

serve for other uses the oil supply for which there is no substitute, then the additional amount of power required will be greater than 100,000 horse power per annum. At the present time the users of hydro-electric power are distributed about as follows:

Lighting, all classes.....	13.6%
Commercial and industrial power .....	45.7%
Agricultural power .....	12.9%
Railway power .....	27.8%
	<hr/>
	100.0%

Increased demands will come from (a) normal increase in the needs of present users; (b) the substitution of water power for oil in many branches of industry; (c) new industries, and (d) new uses for power. Aside from the demand for water power to displace oil, the greatest use in the future will probably come from the agricultural industry. The best available data indicate that there are 22,000,000 acres of cultivable land in the State out of a total of 101,800,000 acres. Of the 22,000,000 acres suitable for cultivation, approximately 4,000,000 acres are under cultivation, including all the irrigated lands. At present there is installed for irrigation purposes in the State, a capacity of about 275,000 horse power. If in the next ten years, as a reflex of the industrial growth of the State, the entire 22,000,000 acres of land be put under irrigation, the power installation required will probably equal about five times the present capacity installed for irrigation purposes.

The whole State should be animated by a spirit of co-operation toward water power development. The destiny of California as an industrial empire will be hastened or delayed as its people encourage or discourage the invitation to capital to support projects to harness the mountain waters. In truth, the future of California will be measured in terms of horse power from hydro-electric development.



## *Solons Commend Railroad Commission for Efficient Service*

Report of the investigating committee of the California Legislature selected to investigate the Commission regards the recent inquiry as having cleared the atmosphere of clouds of misunderstanding.

The report of the joint committee of Senate and Assembly upon the recent investigation of complaints against the California State Railroad Commission has been issued in pamphlet form from the office of the State printer at Sacramento.

The investigation gave rise to considerable public comment at the time. Hearings were held during the months of January and February at Sacramento, San Francisco, Los Angeles, Stockton, Fresno, Modesto, Bakersfield and Visalia. The hearings were open to the public and testimony invited from any and all with the view of throwing full light upon the conduct and attitude of the Commission in every detail of its activities. The result is found in this report, the general tenor of which may be gathered from the following excerpt from the preface signed by every member of the investigating committee:

"Many of the preconceived ideas of members of the committee with regard to the work of the Commission and of the Public Utilities Act have undergone a complete change as a result of this investigation. And it is, perhaps, only fair to say that it is with some degree of embarrassment that these members of the committee have been compelled to abandon their preconceived conclusions in the light of the facts that have been disclosed.

"Honesty and desire for fair dealing, with only the best interests of the State in view, however, rendered it incumbent upon those members of the committee to join without restraint or reservation in this report.

"The belief of your committee is that this investigation will be of great value in the free expression of views by the consumers and the opportunity extended for the people of the State to come to an understanding of the work of the Commission, to say nothing of the findings and recommendations of this committee, hereinafter set out.

"We think it only fair to say that the Commission and its members have

worked in perfect accord with the committee throughout these hearings and that the members have placed themselves and their records and employees unreservedly at the disposal of the committee and have at all times been entirely fair and frank in their discussions of matters coming before the committee.

"Of the personnel of the employees of the Commission we think a word should be said. We cannot speak too highly of the heads of the departments with which the committee came in contact during these hearings. It is apparent that only loyalty to their work hold many of these men with the State, and were pecuniary benefit only held in view by them the public service corporations would have long since added these men to their forces."

The report follows:

*The abrogation of contracts existing at the time of the passage of the Public Utilities Act.*

One of the most difficult conditions with which your committee had to deal was the abrogation of contracts between consumers and public service corporations. In numerous cases the commission made sweeping abrogations and in many instances forced consumers to accept a rate higher than that provided in their contracts. This of course was the cause of much bitterness, especially as, in many cases the agents of the utilities insisted to their patrons that the abrogation was over their protest. And the underlying reasons for these abrogations were not understood by the consumers.

Your committee finds, however, that the theory of abrogation to prevent discriminatory and preferential rates is sound and, in fact, without applying that theory the effect of the Public Utilities Act would be to a very large extent nullified. For if we accept the theory that a public utility is entitled to a "fair return," then some consumers must pay that fair return and it seems a sound principle that ALL CONSUMERS RECEIVING THE SAME CLASS

OF SERVICE SHOULD BE COMPELLED TO CONTRIBUTE ALIKE TO THAT FAIR RETURN; and while in many cases the abrogation of contracts worked a decided hardship upon individual consumers, the failure of the commission to enforce the theory would have entailed a hardship upon all other consumers.

And further, to permit one consumer to have a preferential rate, might, and doubtless would, place that consumer at a decided advantage over a consumer engaged in a like pursuit competing with him and not having that preferential rate, to the ultimate destruction of that one discriminated against. It should be apparent that, if this discrimination were permitted unchecked, a powerful concern being in a better position to enforce its demands, would by securing unfair and discriminatory rates ultimately force the smaller and weaker concerns out of the market.

In many instances consumers had paid value received in rights of way or other concessions for these favorable contracts and the consumer fails to understand that the power of the commission ends with the abrogation of the contract, that it can not restore that which the consumer yielded for that contract, but that the question is then one for the courts alone to decide.

#### *Regulated monopolies.*

Your committee, without expressing any opinion, either for or against public ownership of public utilities, is of the opinion that, in the absence thereof, the only solution of this problem is through regulated monopolies. It has been laid down by Commissioner John M. Eshleman early in the life of the Public Utilities Act that "a regulated monopoly is the settled policy of the state." (Opinion and Orders, Vol. 12, page 231.)

At first glance this policy seemed radical and revolutionary, but, upon closer examination, leads to the belief that the old adage "competition is the life of trade" must, along with others of our traditions, go into the discard. Competition in public utility service is fundamentally wasteful. A territory well served (conceding that regulation regulates and compels good service) by any utility, can not be better or more economically served by two or more utility concerns.

The commission has encouraged, and we think rightly so, the consolidation of utilities, especially where one is small and weak. The old theory of competition was the rendering of good service at reasonable rates under the stimulus of that competition. This is no longer necessary or advisable if we again assume that "regulation regulates."

In the past it was a common practice for a second or even more companies to invade a field already occupied and well served by a first, thereby dividing the business. Sometimes this invasion was inspired by laudable motives, but we are convinced more often by the desire or belief that the first company would be compelled to buy out the invading company, which usually resulted, and the "ultimate consumer" paid the bills. For it must be apparent that one utility can serve a given community BETTER and CHEAPER than two. At all times having in mind the fact that these are now MONOPOLIES IN NAME ONLY because of REGULATION.

#### *Permitting municipalities to withdraw from the jurisdiction of the commission.*

An amendment to the constitution is pending before this Legislature to permit municipal corporations to withdraw from the jurisdiction of the Railroad Commission, at least in so far as the fixing of rates is concerned.

Many elements enter into a fair consideration of this question.

In the first place, to permit a municipality to withdraw might, and we think ultimately would, work a great hardship upon consumers outside municipalities. Probably one of the prime reasons for dissatisfaction and desire to withdraw (if the desire now really exists, and the committee found little if any expression of such desire) is the belief that rates have been unduly raised.

That reason alone convinces us that such withdrawal should not be permitted. For, if the municipalities were permitted to withdraw and should lower rates, and we accept the proposition that the utility company should receive a "fair return," then it becomes evident that consumers outside municipalities would be compelled to make good that reduction.

Another objection that might be logically raised against this amendment, would



be the utter impossibility of the general run of municipalities being able to fix a fair return, owing to the lack of proper facilities for determining that fair return. In fixing a rate the entire properties of the utility company must be taken into consideration and a large portion of the investment is outside the municipality, in many cases. One of the most insistent complaints on the part of municipalities that has been called to our attention is their inability to cope with the large utilities in rate making cases. How utterly impossible then would it be to fix a fair rate if left alone without the assistance of the commission and its records.

Another element that might enter into the fixing of rates by municipalities is the danger of politics entering into the question to the exclusion of fairness. If a municipal body had the question of rate making in its power, in many cases a struggle would ensue between the utility on the one hand and the consumer on the other, as to who would control that body.

And finally if we are to accept the principle of rate making as sound, then that principle should apply to all consumers alike.

The committee is convinced that rates for all consumers should be fixed by a central state body.

*Activities to which should be applied the Corporations Act.*

One of the most distressing and dangerous conditions found to exist and one for which there is no apparent remedy relates to certain districts where individuals or corporations sold agricultural land or town lots, agreeing to furnish water or other commodities at a very low rate, as an inducement to the purchase of that land or lot. A period of time would elapse; the land would all be sold and the seller, either through downright dishonesty or honest inability to continue that service, abandons it. In most of the instances noted the commission could not enforce an order to furnish service owing to the financial inability of the seller to respond. In many instances the cost of reproduction, maintenance and service, not taking into consideration any return whatever upon the properties, is wholly out of proportion to the value of the lands covered. As before stated, in many of these distressing cases there seems to be no remedy whatever. BUT YOUR

COMMITTEE DESIRES TO IMPRESS UPON THE LEGISLATURE AS STRONGLY AS POSSIBLE THE NECESSITY OF PREVENTING BY APPROPRIATE LEGISLATION THE RECURRENCE OF THESE CONDITIONS. We recommend that legislation be passed, placing under the appropriate state department, all enterprises hereafter undertaken whereby any of the commodities covered by the Public Utilities Act are agreed to be furnished, to the end that such agency shall see to it that the person promoting such enterprise shall be in a position to furnish service as agreed.

*Minor complaints.*

Many consumers appeared before the committee with complaints against the commission growing out of poor service, overcharges and general dealings with public service corporations and their employees.

Many of these complaints, while apparently trivial in themselves, pointed to much of the dissatisfaction found to exist. We think it only fair to say that in a large percentage of cases these complaints were found to rest upon misunderstanding, misinformation and lack of knowledge of the laws and of the policies of the commission. We think, too, that much of this dissatisfaction could be removed by the public utilities and their employees by adopting a different attitude toward their consumers. If the utilities would come to the realization that the good will of their consumers is one of their greatest assets they would be more careful in the selection of those of their employees who come into direct contact with the public.

As to many of the other complaints coming before the committee we are of the belief that calling them to the attention of the commission will result in their immediate correction, and their specific review would be of no value in this report.

*Delays and postponements.*

It is apparent that delays and postponements are frequent. But in most instances these delays and postponements are unavoidable. It must be apparent where so large a number of cases are considered and such a large amount of business is transacted that delay and continuance of matters is inevitable. Much of the time covered by this report the commission was severely handicapped by depleted forces. During the war most of the engineering and other

forces enlisted in the service and to a large extent did not again join the state service after their discharge.

We are of the belief that the business of the commission has been transacted, on the whole, as expeditiously as possible.

If a hearing is set for a particular day and it becomes necessary to consume two or three times the amount of time allotted to it, it at once becomes plain that other cases set for the intervening time must go over.

In the years 1919 and 1920 approximately 2447 formal cases and formal opinions and orders were issued by the commission; that during the same period approximately 5261 informal complaints have been received and acted upon and that 372 communications of general official character and letters have been received and answered daily by the commission.

So large a volume of work must necessarily entail overlapping, delay and postponement.

*Regarding the raising of rates of utilities.*

As your committee progressed with this work it became more and more apparent that of the several causes of dissatisfaction with the commission, at least one of the prime causes, was the raise of rates allowed utilities. That this feeling should exist was inevitable, but it was just as inevitable, in our opinion, that these rates should be raised. In fact, it appears that while the cost of operation went up, the rates were kept down to the lowest level consistent with reasonable service. For instance, while the cost of oil, one of those ingredients entering most largely into the manufacture of some of the commodities, raised in price 180 per cent, and skilled labor 60 per cent, and the cost of living generally 96 per cent, the electric rate raise during a corresponding period but 36 per cent, and gas rates but 18 per cent. And while the gross revenue increased during the years from 1916 to 1919, 36 per cent, the net revenues increased but 10 per cent during a like period, and the operating expense mounted 61 per cent. And while the gross revenue of water companies increased 20 per cent during a like period, the net return was but 8½ per cent, and the operating expense increased 28 per cent.

Three years of drought during the period that other abnormal conditions prevailed was an element entering into the increase of rates.

It appeared that poor service or lack of service was as bitterly complained against as was increased cost of service. So if we concede that good service is essential, we must concede that the utilities should receive sufficient revenue to furnish that service. No one was found to contend that a utility was not entitled to a fair return.

*Uniformity of fixing rates by the commission as to time.*

One of the situations which appeals to your committee was that existing where municipalities were called upon to fix a budget for an ensuing period and were faced with the possibility that the rates upon public utility commodities might be raised during the time covered by that budget, thereby rendering the budget to that extent at least, and the amounts called for thereunder insufficient, and working a real hardship.

The committee can make but one suggestion, and that with some hesitancy, owing to the apparent difficulty of carrying this out. That suggestion is that the commission might fix a certain period of time for fixing rates, or stating it contrariwise, have a certain time in which rates will not be changed. Thereby the consumer would be in a position to enable him to estimate exactly what the cost of the commodity would be for a given period of time.

We repeat that there are numerous apparent difficulties to be encountered in carrying out this suggestion.

*The "cost plus" fallacy in rate fixing.*

Many people are of the mistaken belief that the commission fixes a rate that guarantees a certain return on the money invested regardless of the extravagance of that investment or of the cost of operations. In other words, that a condition has come about through regulation and the elimination of competition that renders the utility company extravagant and careless in the expenditure of its money. In fact, it has been openly charged that the California Railroad Commission is fixing rates on a "cost plus" basis.

Your committee finds that the facts in no wise justify such a conclusion. It is apparent that the commission cannot prevent extravagant expenditures either in construction or operating costs, but by reason of its cost data records it can and does prevent the utility company from being protected in such extravagance.

The commission does not in any sense "guarantee" anything. In fixing a rate, the commission proceeds to find the fair value of the property of the utility used and useful in the service of the public. It then puts its accountants to work analyzing and checking up the operating expense. It then fixes a fair return on the value of the property and fixes the rate accordingly. Out of that fair return must come interest on bonded indebtedness and borrowed money, amortization and losses before dividends can be paid. If the fair return happens to pay interest on the outstanding bonds and stocks or the utility the company is fortunate. Otherwise it is unfortunate. Whether or not that fair return will pay a dividend to the stockholders or interest upon outstanding bonds is not taken into consideration by the commission.

Consequently the only too common belief that "the more a company spends the more it earns," should be completely and finally discarded. And the further belief that the commission allows dividends on "watered stock" is also without justification.

Some errors were found to have been made by the commission, but the committee is of the opinion that the commission's record in that regard is an enviable one.

*Bringing the work of the commission closer to the people.*

The work turned out by the commission in the past few years has been tremendous. Of their work the public has seen but the results. The means by which these results have been attained and the reasons underlying them are not so readily apparent. We are of the belief that should the people actually see the workings of the commission, much of the misunderstanding would be eliminated and a much more satisfactory feeling would result.

As the work of the committee advanced it became clear that some means must be devised to bring the people and commission into closer touch.

The average citizen views the commission with mingled feelings of awe and fear. He believes it to be an august body, sitting wrapped about with legal forms and formalities, with which he has nothing in common, and which if approached at all, must be by devious method and with reverent mien. Of course, nothing is further from the truth,

but it is a condition and not a theory with which we are faced and so your committee cast about for a possible means of bringing this most valuable state agency into closer touch with the people.

This, we are of the opinion, can only be done by bringing the commission TO THE PEOPLE. This can be accomplished by having a representative of the commission in each community. The organization of a NEW FORCE is neither desirable, nor do we believe necessary. We have now a body functioning in every community and whose work is closely allied with the work of the commission. We refer to the Department of Weights and Measures.

This department, we think, can and should be consolidated with the Railroad Commission and be placed under complete control thereof. This can be done, we believe, without in any degree lessening the splendid results achieved by the Department of Weights and Measures, and without any added costs to the State to speak of, and at the same time place within the reach of the average citizen an agent and representative of the commission, to whom he could take his complaint or suggestion without formality and with the knowledge that he would receive prompt and effective results.

This consolidation we earnestly recommend.

*Appropriation for the work of the Railroad Commission.*

One of the considerations coming most often and most prominently before the committee was the feeling on the part of the consumers that a fair representation of their side of the case was not had before the commission in rate making cases owing to the lack of facilities for the investigation and presentation of their case. One of the demands on the part of the consumer most frequently voiced was that the commission should have increased appropriations in order that the rights of the consumer might be more adequately protected through augmentation of the working forces of the commission. We call this matter to the attention of the Legislature in order that it may take such action as the matter seems to justify and the state of our finances permit.

In this connection many complainants coming before the committee expressed the belief that much could be gained by having an attorney or representative of

the commission vigorously and openly prosecute the case of the consumer at hearings where evidence was being presented upon which rates were later to be determined. The committee was not unanimously convinced, however, that the amount of practical benefit to be derived from such procedure would be sufficient to justify the added expense, but was of the opinion that the effect of such open and vigorous prosecution, while admittedly satisfying to the consumer, would be more psychological than practical.

#### *Recommendations.*

We recommend that a standard form of contract for service be formulated by the commission and that utilities be compelled to use such general form. We further recommend that such general form of contract contain a provision in plain type showing that the rates therein set forth are subject to change by the commission at any time, anything in the contract to the contrary notwithstanding.

We recommend that all literature relating to the sale and advertising of the stocks, bonds and securities of any public service corporation or its agents be supervised by the commission and that nothing in that literature be permitted which can in any manner be construed by the public as being an endorsement or guarantee of said stocks, bonds and securities or of the rate of the return thereon by said commission or the State of California.

We recommend that the commission more strictly enforce the penalties provided by the Public Utilities Act for violations of the act and of the rules and regulations of the commission and more particularly with regard to overcharges for extensions and service.

#### *Conclusion.*

And in conclusion permit us to call attention to the fact that the public utili-

ties are as necessary a part of our future economic development as any other agency; that they are entitled to fair treatment at the hands of the people, and to a fair and just return upon their money invested in property used and useful in the public service. That the time is rapidly approaching when our fuel oil supply will be exhausted, or so nearly so as to become prohibitive in cost, and that the development of the State depends largely upon hydro-electric energy.

That capital must be encouraged to enter that field and the only manner by which capital can be interested is to give it to understand that investments in utilities will be respected and will be permitted to earn a fair return. Otherwise, they will look for fields where they can expect such treatment. The sooner that these public service corporations and the people learn that their interests are mutual, and not antagonistic, the better off both will be.

And finally the committee earnestly commits this great law, the Public Utilities Act, to the commendation of the people. It has worked well and is working well today. Strengthen it rather than weaken it. During times such as have just passed have faith in your commission that they will be a buffer between you and the utilities, so that the people on the one hand will receive good service at a fair price, and that the utility will receive such treatment at the hands of the people that will encourage capital to come to the State and help develop our wonderful resources.

Senator J. M. INMAN, *Chairman.*

Senator WALTER EDEN.

Assemblyman C. W. CLEARY.

Assemblyman B. S. CRITTENDEN.

Assemblyman ISAAC JONES.



## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

Once again the Oakland "Frolic" has come and gone. It was held on the evening of Saturday, February 26th, in the Oakland Auditorium. The "Frolic" has become a looked-for yearly event, as something unusual in character, something in keeping with its name, a sort of three-ring circus, as it were, an evening of the kind of fun that everyone likes, both young and old. In this event the East Bay Division has, indeed, established a record.

This year nothing was left undone to make it the success that it was. The entire Auditorium was filled with spectators whose applause was sufficient evidence that they were enjoying the show. The assemblage numbered upwards of six thousand, every seat being occupied in the spacious galleries and the boxes downstairs filled to overflowing.

In fact, it has been called the best show of its kind ever held in Oakland. The program was one to be proud of and it was handled with promptness and well arranged dispatch.

It was much regretted that Mr. Creed and Mr. Britton were unable to attend, being in Sacramento at that time. However, Mr. Hockenbeamer, Mr. Downing and Mr. Leach were interested spectators. Mr. Leach especially so, for former years his place was at the helm of the division bark, and now this year, for the first time, he appeared as an on-looker.

The program opened with choral singing, under the direction of H. Milholland, by the East Bay Division Chorus, composed of Misses M. J. Adamson, Velma Allen, L. Calhoun, E. Case, Gladys Freeze, E. Gerard, T. Hamilton, M. Garcia, H. Morrow, J. Leach, P. Strum, L. Silcox, I. Sweet, A. Thompson, H. Thompson, E. Bolter, Mrs. Burnham, Mrs. J.

Krug, Mrs. Janz and Messrs. E. C. Johnson, C. A. Carlson, George Nelson, H. Godlier, W. Strum, F. Fisher, W. Hogarty, W. W. Shuhaw, W. Walker, D. Carmichael.

Then came the masqueraders who circulated around the floor and kept things altogether lively. There were the farmer and his son, impersonated by Perry Smith and Schuyler Smith; the Chinese Band, composed of Frank Viera, Harry Jenkins, George Jenkins and Clyde Lorton; our old friends, Huck Finn and Tom Sawyer were there in the persons of Ray Cassaleggio and Milton Heino; a South Sea Islander in the person of E. Eldredge; the Gold Dust Twins, Charles Benton and Joe Pedro; Shasta Baby, Lewis Hunt; Clowns, J. Starkey and son; Bug Chaser, Edwin Smith; last, but not least, the Rube Band, composed of employees of the gas meter repair department. Each and every one of these characters was excellently gotten up and sustained throughout to the credit of each actor. Old-fashioned stunts that gave color and atmosphere to the show and kept the audience in constant laughter.



Betty Jane Teeple, aged six years.

The hand-line throwing contest started action. The first prize was won by J. Pazak, who is not a lineman, but a member of the Land Department, San Francisco. The wire over which the line was thrown was 40 feet high when measurements were made and it was found that Mr. Pazak had thrown the handline 52 feet high. Of the dozen men from the different districts taking part only four were able to heave the handline over.

A volley ball game followed which resulted in a tie between the two teams in charge of Capt. C. A. Perry and Capt. B. C. Tyler, respectively. Then came the

fancy dancers from Miss E. Gages' dancing studio, who entertained delightfully in a number of dances and songs. The young ladies who contributed this part of the program were the Misses Margaret Kirsten, Merle Nance, Emma Reid, Clara Bacharach, Pearl Thompson, Rosie Cohn, Helen Olson, Dorathea Grandow, Eleanor Daneri, Nagene Edgar, Gladys Silva, Betty Jane Teeple, Ethel Dotson and Baby Vivian Monzo.

Special mention should be made of the speech of welcome by little Betty Jane Teeple. Betty is but six years old, but she was as self-possessed, apparently, as an old hand. She said:

"How do you do, everybody. I have been asked to come out here and help entertain you this evening. Now I would like very much to know all you nice folks, but, of course, I couldn't remember all of your names; but I would like very much to have you remember me 'cause my daddy has used your gas and electricity for a lot of years. Now I am going to tell you who I am. My name is Betty Jane Teeple of Oakland, California. The next time I meet you folks I wonder how many of you will remember me.

"Ladies and gentlemen, I do esteem it an honor and a privilege to be asked to make a speech before such a distinguished assemblage. We are gathered here this evening under the auspices of that wonderful organization, the Pacific Service Employees Association. Believing that I am authorized to speak on this subject I will say that it is impossible to name any other organization that does for its employees what this company does for you. Think of the good times you



Miss Gibbs, heroine of "The Artist's Dream."

have, picnics, parties and even shows for your special entertainment. I could go on and say a lot more nice things about this company, but I know very well that you all would much rather be watching the tug-of-war between the girls that is going to be put on pretty soon than listening to me. I want to say just one thing more before I leave this platform, and that is, that the public appreciates the service rendered by this company and we all know that it has only been made possible through the individual efficiency of its employees. From the bottom of my heart I thank you."

The acrobatic portion of the program was performed very ably by wrestlers from the University of California and from the Young Men's

Christian Association.

Follies Revue appeared next on the program and consisted of singing and dancing very well done by Misses A. Buckingham, C. Brown, H. McDonald, V. Buckingham, F. Tripp, H. Morrow, M. Hall and M. Young.

The Artist's Dream followed, Charles Carlson taking the part of the artist painting the picture of a beautiful girl. Miss E. Gibbs played the part of the girl. When the curtain was raised Miss Gibbs was standing in a large gilded frame with the artist before her with palette and brush putting on a few finishing touches. He became sleepy and sat down in a chair and fell asleep. He

dreamed that his picture was real and that the subject of his portrait was dancing before him, and while he slept the vision became real, stepped from the frame and danced. When she finished her dance she stepped back into the frame. At this point the artist awoke with a start and



Accounting department team, winner in the girls' tug-of-war.

looked at his picture to find that he had only been dreaming.

The first prize was awarded to this act and the music for it was furnished by Mrs. A. U. Brandt and her son, Ralph.

Then came the pole climbing contest by the linemen, which proved of much interest and with the following results: 45-foot pole: First, Silva, 18.1 seconds; Maderios, 18.2 seconds; second, Erickson, 19 seconds; third, Soule, 19.1 seconds; Champion, 22.4 seconds; Griffin, 23 seconds; Simpson, 23.3 seconds; fourth, Eckstrom, 20.3 seconds; Thompson, 28 seconds.

And after the exciting pole climbing contest the hobo, played by M. Renatti, came in for some attention as he was ordered off the floor by M. B. Estis, who took the part of the policeman. Renatti outwitted the policeman by climbing the pole and sliding from the top of the pole to the southeast corner of the Auditorium, and the audience had to give a close look before they saw he was sliding on a wire.

One of the hits of the evening, especially in point of noise, was the stunt entitled "Pacific Service on the Jump," in which the principal actors were Messrs. Gentis and Abernathy. Joe Worthington's old Ford was used for this stunt and used hard, too. Through the use of revolvers and a piece of stove pipe containing a charge of powder there were plenty of fireworks and things were made pretty lively for awhile.

An unusual feature of the evening's program was the girls' tug of war between members of the accounting and bookkeeping departments. It was certainly the most talked of event of the evening and caused much excitement. After five minutes of good hard pulling the victory was won by accounting department team which was presented a loving cup, the gift of Mr. W. E. Creed and Mr. John A. Britton. Each girl received a Madera handkerchief from Mr. Britton and a large box of candy from

Division Manager L. H. Newbert. The girls of the bookkeeping department were not forgotten, each receiving a box of candy. The girls on the accounting department team were Mrs. M. E. Cordon, C. Sprjng, A. Mattson, Misses, E. Gibbs, captain; M. Frank, H. McDonald, E. Federighi, N. Vogliotti, S. Clark, J. Howard, J. Crowley, R. Logan. The bookkeeping department team consisted of Misses Hazel Morrow, Adel Narinian, Emma Burnham, Dorothy Samuelson, Anna Peterson, Mabel Garcia, Leona Calhoun, Olga Carlson, Jeanette Lynn, Marion Young and Tessie Brewer, captain.

The Men's tug of war followed. W. N.

Munroe's men from electric station "C" won the F. A. Leach, Jr., cup from gas station "B." Station "C" team consisted of Messrs. M. P. Pearce, J. Pereira, C. D. Deardorff, A. F. Soderstrand, T. F. Doolittle, F. G. Palmer, H. C. Gardarini, T. S. Silva, T. Silva, H. Pederson, O. L. Pershing, F. Abena and W. N. Munro, captain. The team from station "B" was composed of Messrs. W. J. Kitto, Joe Pleau, E. Smith, J. Barthelmy, A. Moore, J. H. Baker, F. Ostrom, J. Ruana, P. Jorgensen, J. E. Oster-



The team from the bookkeeping department.

man, G. Riveri, A. Bueno and Al Derrick, captain.

Another of the many features provided was a playground for the children, under the direction of supervisors, through the kindness of Mr. Jay Nash, head of the city playground. This proved not only a pleasure to the children, but it gave the parents an opportunity to enjoy themselves and know, at the same time, that their children were being taken care of.

The following committee was responsible for the planning and carrying out of the program and great credit is due them:

General chairman, W. W. Shuhaw; vice-chairman, J. C. Bowden; secretary-treasurer, W. O. Stephens; program, Joseph Worthington; stunts, W. H. Cohick and H. Wagner; music, E. C.



Station "C" team, winner of men's tug-of-war.

Johnson; advertising and attendance, J. Krug; editorial, J. L. Hancock; reception, W. F. Pape; house, R. A. Gentis and H. W. Beekman; floor, J. C. Bowden; transportation, H. Bennett and V. Frederickson; playground, H. N. Mosher; police, N. Monro; athletics, B. Tyler; membership, H. W. Beekman; Sunday excursion, R. A. Cotter.

There were many visitors from the various districts and the following day, Sunday, they were given an automobile sightseeing trip which took them through the University grounds down to Mission San Jose with a stop at the Newark sub-station. A feature of this trip was the aeroplane which acted as a guide for the auto procession. G. W. Buckley drove the plane and was accompanied by Chairman A. U. Brandt. Mr. Brandt said he enjoyed the air trip and was only nervous when flying over Yerba Buena Island when the machine went into a dip and he thought the earth was coming up to hit him.

Altogether from start to finish the "Frolic" was a great success. Everyone caught the spirit of the occasion.

The out-of-town gathering for the month of February was held at Fresno on Saturday the 19th of that month. Concerning this it may be said that it served, perhaps, more than any other gathering held since the establishment of the new order of things to illustrate the active interest displayed by the membership generally in the affairs of the Association. For Fresno is quite a long distance removed from the center of "Pacific Service" activities, and it was no small undertaking to make the

journey there for a single evening's entertainment; it was, therefore, no small feather in the cap of Division Manager Ross and Division Section Chairman Dunshee to record an attendance of 185 from outside sections of our "Pacific Service" territory, including not only the bay centers, but even remote up-country points. One trip was made by automobile all the way from Auburn.

With the foregoing as an example the future of these out-of-town reunions is assured.

The weather god was reasonably propitious and the outing was thoroughly enjoyed. Owing to the time of the year it was not possible to arrange anything in the way of a picnic or sight-seeing excursions for the day following; nevertheless, every man and woman who went to Fresno felt satisfied with the experience.

The visitors assembled at the company's headquarters during the afternoon. The evening's program opened with a dinner at St. John's cafeteria, where all of us lined up with trays and helped ourselves to the good things offered. Supper over we trooped off to the Parlor Lecture Club, a commodious building with a serviceable theater, and there a varied program was offered for our entertainment. Section Chairman Dunshee made the address of welcome and then introduced Mr. Brandt, our Association chairman, who spoke briefly. Mr. E. G. McCann of the valuation department, spoke earnestly and well upon the aims and objects of the Association and the good value to be gained by membership in it. Then came Mr.



Girls who appeared in the "Follies Revue."



"Billy" Henderson with some remarks upon the King tax bill and what its passage by the California State Legislature would mean to the public service corporations to be victimized.

Miss Margaret Gordon of the Fresno office sang most delightfully. Mr. V. R. Hughes, our safety engineer, presented his series of attractive motion pictures taken by himself at various points of the "Pacific Service" territory. Those taken last fall on our Pit river system were new to most of the audience, and the graphic description they presented of the work being done on Hat creek and Fall river gave them a value outside of their more pictorial charm.

It was not an elaborate program, but it pleased all present. At its conclusion the floor was cleared for dancing and a delightful interlude was an exhibition of dancing by Nellabelle Scott, Bobbie Blake and Carmelita Marraci, pupils of Mrs. S. L. Polito. After their exhibition the young people were fed ice cream and goodies by Mrs. Dunshee. All the guests came in for refreshments later, and it was characteristic of this part of the entertainment that the raisin industry should be prominently featured.

On the morning following the Fresno *Republican* not only contained an account of the meeting, but also published an article upon the growth of our company's gas plant and service since its initial construction nearly thirty years ago. The article was illustrated with pictures of the plants, both old and new.

The regular monthly meeting in San Francisco was held at Elks Club Hall on the evening of March 8th. It was well attended and an unusually good program was presented to the assemblage.

Our "Pacific Service" orchestra was on hand, as usual, under the direction of L. A. Melbourne, and opened the evening's entertainment with some up-to-date selections.

Miss M. Katherine Livingstone, a young lady of local fame, gave a dramatic reading, "The Americanization of Andre Francois," which proved to be something quite unusual in the way of a monologue. The same entertainer ap-

peared later in the program in a one-act playlet, entitled "The Neighbors," in which she undertook the portrayal of several characters in a manner so true to one's conception of life that the entire audience was vastly amused.

Another local entertainer, Miss Jessie Pugsley, appeared attractively attired as an old-fashioned girl, in the now almost forgotten crinoline, and sang old-fashioned songs delightfully. She, too, appeared a second time and rendered a couple of ballads of a more modern setting.

Other features of the entertainment's program included Senorita Carmen, in a Spanish dance, and M. Gualtierio Bar-



A. W. Buckley and Joe Worthington standing by the aeroplane.

talini in an Arabian dance, both done in costume.

The feature address of the evening was presented by Mr. Bailey Millard, a journalist and magazine writer of wide experience both on the Pacific Coast and in the East. Mr. Millard was introduced to his audience by an old journalistic associate, Mr. F. S. Myrtle. He chose for his subject "Newspaper Veracity," a topic of almost every day discussion and one which gives limitless opportunity to the essayist. Mr. Millard treated his subject with a light touch of humor that set off the more serious matters that his audience were left to dwell upon.

In the main, Mr. Millard, while deprecating the loss of real influence by the press of today, thought that journalism in its magnitude and volume was on the up grade. He thought, however, that it

would take more than volume and patronage to enable the newspapers to regain the influence and prestige they once enjoyed. To us who heard Mr. Milard it seemed as though the hurry and bustle of twentieth century existence, when one has hardly time to think, may be largely responsible for the present condition of things.

Upon conclusion of the evening's entertainment the boys and girls enjoyed dancing to music furnished by our "Pacific Service" orchestra.

At a meeting of the executive body of our Association, held March 15th, the committee on membership through Chairman Roy Crossman reported a total membership roll of 3,812 men and women members of "Pacific Service."

The enormous progress made by the membership drive may be gathered from the fact that the records show an increase of over one thousand since progress was reported a month previous. This second report also showed some change in percentages. The San Francisco Division still heads the list with an enrollment total of 81 per cent of its employees, and now Colgate comes second with 76 per cent and San Jose third with 69 per cent. Our Northern Division with 68 per cent is a close-up fourth. These are truly remarkable figures. "Well done!" we say to the membership committee.

Division sections have been getting busy. Informal gatherings have been held at Marysville, Redwood City, Napa and San Francisco during the past month.

That at Redwood City was held under the auspices of San Jose section on February 21st. Section Chairman L. E. Wolbert reported 160 members present at roll call. There was a program of entertainment, including selections by our "Pacific Service" orchestra, monologues by C. L. Thompson, dances by the Zimmerman daughters and Benny Lane and a song by Sonny Haney. Dancing, as usual, closed the evening.

The members of North Bay Division section gathered at Napa March 12th. About 200 attended. Section Manager A. J. Stephens presided and introduced the Mayor of Napa, Mr. Charles E. Trower, who made an address of welcome. The parent body of the Associa-

tion was represented by W. M. Henderson, who spoke upon the advantages of membership. Chairman Brandt of the Association was also there with some happy remarks.

The program of entertainment included songs and dances, and a special feature was an exhibition of our motion pictures of the Pit river project. Supper and a dance closed a pleasant evening's entertainment.

The Marysville and San Francisco meetings were delightfully informal and thoroughly enjoyed by large assemblages. San Francisco section has planned a theater party for the 29th inst., the Alcazar having been taken for the occasion. This kind of entertainment appears to be growing in favor.

That the Oakland "Frolic" found favor outside the ranks of "Pacific Service" is evidenced from the following communication addressed to Manager Lee Newbert of the East Bay Division by the Assistant General Manager of the East Bay Water Company:

Oakland, Calif.,  
February 28, 1921.

Dear Lee:

We were there, both of us, "*me and my wife*." A splendid show, too, your fourth annual frolic. The crowd staggered me and the circus regularity with which your stunts were staged impressed us. Everything was good and wholesome. The boys climbing the pole and the tug-of-war were both wonderful exhibitions. I laughed till my sides were sore at the fool policeman and the fellow climbing the pole and sliding away on the wire.

The whole affair speaks well of the P. G. & E.'s organization, and your invitations were accepted, too.

(Signed) CHARLIE E. THATCHER.

As this goes to press arrangements have been concluded for the out-of-town gathering at San Jose on the 19th and 20th of March. The scene of festivities on the Saturday evening will be the old Hotel Vendome, where dinner and a program of entertainment have been arranged. On the following day the blossom festival being in full swing, it has been arranged to take visitors out through the Santa Clara valley.

The Financial Side

Earnings for the year 1920 have already  
Balance Sheet at December 31st, 1920, duly certified  
certified public

BALANCE SHEET.

ASSETS

CAPITAL ASSETS:		
Plants and Properties		\$164,655,623.97
DISCOUNT AND EXPENSES ON CAPITAL STOCK ISSUED		5,525,155.25
INVESTMENTS		1,273,941.45
TRUSTEES OF SINKING FUNDS:		
Liberty Loan Bonds	\$ 364,400.00	
Cash	15,846.91	
Interest Accrued on Bonds held in Sinking Funds	92,133.31	472,380.22
CURRENT ASSETS:		
Materials and Supplies on hand and in transit	\$ 4,557,535.61	
Installments receivable from Subscribers to First Preferred Stock	\$10,268.89	
Bills Receivable	\$ 186,458.58	
Accounts Receivable	3,490,961.46	
	\$3,677,420.04	
Less—Reserve for Bad Debts	160,811.21	3,516,608.83
Cash	2,078,402.28	
Liberty Loan Bonds and Certificates of Indebtedness	1,129,400.00	
Balance on Employees' Liberty Loan Subscriptions	6,718.00	
Interest Accrued on Investments	36,727.60	12,135,661.21
DEFERRED CHARGES:		
Discount and Expenses on Funded Debt	\$ 5,088,239.02	
Unexpired Taxes and Undistributed Suspense Items	166,696.39	
Reserve for Maintenance of Electric Department Capital, per Railroad Commission Decision No. 7823	115,650.68	5,370,586.09
TREASURY BONDS, not included in Assets or Liabilities:		
General and Refunding Bonds	\$17,000,000.00*	
Bonds of Subsidiary Companies	341,300.00	
	\$17,341,300.00	
*\$875,000.00 General and Refunding Bonds pledged in San Francisco Rate Cases.		
\$16,000,000.00 pledged as Collateral under P. G. & E. Co., 5 year 7 <sup>7</sup> / <sub>8</sub> Collateral Trust Gold Notes, Trust Agreement and Mortgage.		\$189,433,348.19

We have audited the books of the Pacific Gas & Electric Company for the year ending December 31, 1920, and certify that in our opinion the above Balance Sheet is properly drawn up so as to show the true financial position of the Company at December 31, 1920.

PRICE, WATERHOUSE & CO.

San Francisco, Cal.  
March 31, 1921.

## of "Pacific Service"

been published. We present below  
by Messrs. Price, Waterhouse & Company,  
accountants:

DECEMBER 31, 1920

### LIABILITIES

#### CAPITAL STOCK OF PACIFIC GAS & ELECTRIC COMPANY:

##### Common:

Issued.....	\$65,700,924.66
Less—Owned by Subsidiary Companies.....	31,696,866.66

\$34,004,058.00

First Preferred.....	33,628,230.00**
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Original Preferred.....	56,800.00	\$67,689,088.00
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#### CAPITAL STOCK OF SUBSIDIARY COMPANIES not held by the Pacific Gas and Electric Company and Unpaid Dividends thereon.....

39,748.27

#### FUNDED DEBT:

Pacific Gas and Electric Company—5 year 7% Collateral Trust Gold Notes.....	\$10,000,000.00	
General and Refunding 5% Bonds.....	36,542,000.00	
Bonds of Subsidiary Companies.....	49,216,600.00	95,758,600.00

#### CURRENT LIABILITIES:

Notes Payable by Northern California Power Company Con- solidated.....	\$ 196,826.82	
Accounts Payable and Unaudited Bills.....	2,068,316.74	
Drafts Outstanding.....	579,272.96	
Meter and Line Deposits.....	831,003.08	
Unpaid Coupons.....	130,367.50	
Interest Accrued but not due.....	1,583,918.26	
Taxes Accrued, but not due.....	1,287,746.03	
Dividends Declared.....	425,216.77	7,102,668.16

#### RESERVES:

For Northern California Power Company Consolidated Plant Adjustments and Accrued Depreciation.....	\$ 1,648,136.94	
Depreciation.....	8,652,408.58	
Insurance and Casualty Funds.....	204,726.57	
Reserve for amounts charged during 1913, 1914, 1915, 1916 and 1917 to Consumers in excess of rates allowed by City Ordinances.....	1,820,134.09	12,325,406.18

#### SURPLUS:

Invested in Sinking Funds.....	\$ 1,077,914.26	
Balance Unappropriated.....	5,439,923.32	6,517,837.58

\$189,433,348.19

\*\*Includes stock subscribed for but not fully paid and issued.

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

JOHN A. BRITTON - - - EDITOR-IN-CHIEF  
FREDERICK S. MYRTLE - - MANAGING EDITOR  
A. F. HOCKENBEAMER - - BUSINESS MANAGER

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PACIFIC GAS AND ELECTRIC COMPANY  
at 445 Sutter Street, San Francisco

*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

VOL. XII      MARCH, 1921      No. 10

### EDITORIAL

The report of the committee of the California Legislature at Sacramento appointed to investigate complaints against the Railroad Commission is, in effect, a decided testimonial to the efficiency and general desirability of the commission form of public utility regulation.

By this report, which is published in full text elsewhere in this issue of PACIFIC SERVICE MAGAZINE, the atmosphere was cleared of many clouds of misunderstanding and distrust that had been allowed to gather for some time past. The members of the committee themselves joined in a graceful admission that many of their preconceived ideas regarding the work of the Commission and the Public Utilities Act had "undergone a complete change" as a result of the inquiry. And so it came to pass that a proceeding which had its origin in what appeared to be serious differences of opinion resulted in general benefit to the community at large, as well as to the parties immediately involved, and, at the same time, gave an impetus to progress in the direction most to be desired.

The commission form of regulation seems to be a winner right down the line whenever and wherever its

results are challenged. Quite recently an open expression of opinion on this question was sought through the initiative of Governor Brough of Arkansas, who invited his brother executives of various States of the Union to record their views based upon experience. The replies received generally went far to disprove the assertion to which much publicity had been given that the people, as a whole, were dissatisfied with regulation as practiced in their respective States. Some of the opinions given were particularly emphatic. Governor Sleeper of Michigan was responsible for the following:

"We believe the public utility commission is absolutely indispensable, but its powers should be further extended. State regulation certainly should be perpetuated."

The Governor of Oregon put himself on record with "We consider our utilities commission an indispensable department because it keeps public service corporations out of politics and because it saves our people hundreds of thousands of dollars annually."

"The public service commission has been working out satisfactorily in this State. I am recommending increased authority and facilities to enable the commission to investigate more thoroughly the affairs that come up for approval or regulation," wired the Governor of Vermont.

The Governor of Indiana replied to the query: "Our public utility commission has given complete satisfaction. It is undoubtedly a great step in advance and will be retained in our State."

The Governor of California, telegraphing from Sacramento, declared: "The State Railroad Commission of California, regulating public utility rates, has justified its existence in every way."

In the list of recorded approvals are the names of between thirty and forty State executives from whom replies had been received at the time of writing, and the foregoing are quoted merely as examples. As a result of this showing the Governor of Arkansas recommended in favor of the corporation commission law of his State, giving eleven practical reasons why, in his judgment, that law should be sustained.

No system of regulation, however, can succeed without popular support. The

public, in fact, is the court of last appeal. Mr. James H. Wilkerson, former chairman of the Illinois Public Utilities Commission, in an address before the American Electric Railway Association in Chicago, said:

"Experience has led me to the conclusion that the permanent and final solution of the public utilities problem involves something more than statutes, court decisions, orders from commissions, or ordinances of city councils. Constitutions and laws and decisions have no permanency unless back of them is the sentiment of the people. No question whose solution involves the enactment, interpretation and enforcement of laws can ever be finally settled until it is settled in the minds of the people and until the law reflects the true thought of the people."

Mr. Wilkerson expresses the view of every thinking man with any knowledge of public affairs in the country today. The people want to be shown, and it is up to the public utilities and, in an almost equal measure, the commissions having jurisdiction of the public utilities, to do the showing. The condition of unrest that has given rise to public inquiries and investigations of the public service problem is due to nothing more than lack of complete information on the part of the public as a whole. We have observed in these columns many times and oft that the only true solution of this public service problem is the establishment of mutual relations of complete understanding and confidence between the public utilities and the public they serve. For that reason, if for no other, the campaign of education and instruction to which we referred in our last issue must be carried on with unremitting energy and perseverance.

The hearing before the State Railroad Commission of our company's application to fix electric rates has been set for the 29th of the current month in San Francisco. It has already attracted public attention all over north-central California, for word has gone forth that at this hearing our company will present matters of unusual public interest.

The testimony introduced will show that northern and central California cannot further advance until hydro-electric energy in large, steady and dependable quantities can be brought to the

cities of industry and population over long-distance transmission lines at an electro-motive force hitherto thought impossible of control. Our company will unfold the story of its gigantic Pit river development upon which it has recently spent over \$3,000,000 and to complete which it plans to expend in the next few years a further sum of \$60,000,000. It will be shown that the streams of Pit river basin can be made to deliver ultimately to northern and central California about 7,000,000 kilowatt hours per day, which is double the capacity of all the power plants now owned and operated by the company. This power, if used to replace the power generated by steam, would save for other needs approximately 35,000 barrels of oil per day, or 12,775,000 barrels of oil per year. The plans of the engineers and of the financiers will be presented to the Commission. The company will urge that these plans to provide additional power cannot be carried to completion without a thorough understanding of the necessities of the situation on the part of the public, and without the public's complete co-operation.

The corps of witnesses for the company includes President Creed, Vice-President and General Manager Britton, Second Vice-President and Treasurer Hockenbeamer and the heads of the various departments of engineering. The unusual range of the testimony presented will serve a most useful purpose in enlightening, not only the Commission, but the public generally upon matters of vital importance to the progress and development of the entire territory over which our company's operations extend, and in which progress and development the public and the public utilities, whose business it is to serve them, are mutually interested.

In a previous issue we made mention of several tokens of affection and esteem presented by employees to certain officials of our company following the general departmental reorganization last winter. Among those so honored we omitted to mention Mr. J. W. Hall, whose retirement from the managership of the San Joaquin district was regretfully announced at the time. Mr. Hall was presented by the employees of his district with a valuable gold watch, of which he is very proud.

## Tidings From Territorial Divisions



### East Bay Division

We feel very kindly toward the people of Stockton, for we have been there many times—socially. The Employees' Association has been royally entertained at Stockton and the good people, seemingly, have done more than enough, and then, withal, come these words:

"Oakland has an ambition to be the best painted city in the State—referring to her houses and not to her women who don't need paint to make them beautiful."—Stockton Record.

Henry Hansen, the East Oakland meterman, slipped away over the Washington's Birthday holidays and came back with a broad smile and let out the secret, that if the boys would call at 850 Fifty-fifth street he would introduce them to Mrs. Hansen. Friday, March 11th, at a meeting of the Harbor View Club a set of aluminum cooking utensils were presented to Henry and Mrs. Hansen with wishes for a bright future.

The Martinez-Benicia Ferry is again in operation and with the opening of the Franklyn Road sometime this summer auto traffic to and from the city, as well as a good portion of the through traffic, is expected to go that way.

Mr. George Jordan, former meter reader of the Oakland office, is now meter reader of the Contra Costa district of the East Bay division, with headquarters at Martinez.

Antioch will ship 125 cars of asparagus. Approximately 80,000 crates will go forward from that district this season. The first of the season was shipped February 26th. About one-fourth of the Eastern shipments go from Antioch. More than 21,000 carloads of California vegetables go East. Last year lettuce headed the list with 5,764 cars, cauliflower 2,167, celery 1,440 and tomatoes 1,500.

"Pacific Service" pumps the overflow water off the land into the Sacra-

mento river in winter and in the summer pumps the water back from the river onto the land. E. B. D.

### Colgate Division

What is believed to have been the largest individual orchard planted in the Sacramento Valley this season was set out to peaches, pears, plums and prunes by Jackson Diggs, son of Senator Diggs, on land recently acquired by him in Sutter county.

The new orchard takes a portion of the famous Briggs tract, where Sutter county peaches were originally propagated. Mr. Diggs intends to irrigate extensively during the coming season. He will do this, by the way, with the aid of "Pacific Service."

Another program of planting is being carried on near Wheatland, Yuba county, by the E. Clemens Horst Company, which is putting in 500 acres additional to grapes this year. No less than 100,000 cuttings have been received at Wheatland and planted between rows of hop vines on the vast tracts owned by the Horst Company.

This planting of vineyards between hop vines is an experiment, but it is looked upon as highly practicable by vineyardists of the State.

Preliminary work on the new lumber mill to be erected at Oroville by the Hutchinson Lumber Company is fast nearing completion, permitting the actual mill construction to get under way. The plant will cost several thousand dollars and will have a large force of employees.

Oroville is important as a gateway to the Sierra Nevadas, being situated where hill and valley merge. It is ideally situated for the lumber mill which will handle the great timbers which are felled in the mountains of Butte and Plumas counties.

Marysville is after the reputation of being the "Sweetest City in California" and believes it has a just claim, for, with-

in the past few months two large candy and ice cream manufacturing concerns have chosen the Hub City for factory sites. The Ellamore Candy Company's large plant was formally dedicated with a celebration recently and expects to furnish thousands of gallons of ice cream to all portions of the Sacramento Valley during the summer months and to manufacture much candy for the Christmas trade.

The plant is operated by means of "Pacific Service" energy and the manner in which the company handled the installation received high praise from officers of the confectionery concern through articles in Marysville newspapers.

FARWELL BROWN.

### Sacramento Division

Our gas distribution in Broderick is now in the final stages. The new meters here will be from 125 to 150 and will tend to make Broderick a more desirable residence district than ever.

The same remarks will apply to Davis where the mains are now being laid in the streets and services run.

Mr. J. N. Young, superintendent of gas distribution, has been succeeded by Mr. J. Shaffer, who comes to us from San Francisco and was formerly in Fresno. Mr. Young has been with the company for several years and resigns to take up some other work. He was presented with a beautiful gold watch by the men of his department as a token of esteem and good fellowship. We wish him good luck. We welcome Mr. Shaffer and from all reports feel confident that he will make good.

While speaking of changes in office force, will state that the position of superintendent of credit and collections made vacant by the untimely death of Frank Tuke has been filled by the appointment of Mr. H. H. Dashiell, who has been transferred here from Redwood City. Mr. Dashiell has been in "Pacific Service" for fourteen years and is a thoroughly qualified man for his new position. He brings his family with him and is a valuable acquisition to our family circle.

The breaking down of the barriers of high cost material seem to have commenced. By reports received and work commenced we find that in the past two weeks more permits have been taken than in the last two months. This means lots of work for us in new mains and services and greater output of our commodities. We are handling between 75 and 80 per cent of this work.

New buildings are under way as follows:

The new Paramount Theater; new bank at 1015 Seventh street; several magnificent school buildings; nearly 100 new residences; a new filtration plant; an apartment house of 36 apartments of 3 rooms each and about 40 single rooms. Nearly a half block will be covered by this last-named structure.

THE CAPTAIN.

### San Joaquin Division

A jolly party was held in Modesto on February 12th at which about fifty of the Modesto employees and their friends were present. The time was most pleasantly passed with cards and music until midnight, when hot dogs, coffee and cake were served in the basement, which had been fitted up as a temporary club-room. All agreed that this, our first attempt at a social gathering, was a huge success, and everyone voted for many more of them.

Modesto office is now a seething cauldron of industry. With an office force practically double that of the old district office, we are sure to accomplish wonders. Among those whom we welcome to our midst this month are Mr. Cluff, formerly accountant of Solano district; Mr. Edward H. McCarty and Miss Jessie Stinson.

About fifty from San Joaquin division attended the Fresno meeting in the Raisin City, and all report a most enjoyable time. "Thank you, Fresno."

Mr. and Mrs. E. C. Woodruff and little Miss Jean, aged two, welcomed into their home on February 8th a little son, Thomas. Mr. Woodruff is our agent at Tracy.

On February 14th Sonora was visited by one of the heaviest falls of snow in



a long time and caused considerable disturbance to lines in that section, but thanks to the efficiency of "Pacific Service" it was overcome in a very short time, to the great pleasure of some of the old timers.

We have to report with great regret that Sonora office lost one of its standbys who was called to take the position of quartermaster at Electra, due to changes made recently on account of our reorganization. We all wish Mr. G. H. Nelson, formerly ledger clerk, all good luck, and feel sure that he will succeed in his new field of occupation.

The employees of the company in Sonora held a very successful meeting in Sonora office on February 17th. All present who did not already belong to the P. S. E. A. joined enthusiastically. At the end of the meeting, Mr. Werry presented Mr. Joe and Mr. Ed Hampton with P. G. & E. service badges for their ten or more years of faithful service to the company.

About twenty employees in San Joaquin division were honored with service badges as of January 1st. These men are all former employees of the Sierra & San Francisco Power Company, and its predecessors, and we all feel that the Pacific Gas & Electric Company has been very fair in recognizing their service. "Pacific Service," we thank you, not for the badges alone, but for the spirit they represent, the spirit of co-operation, of unity and of service!

LILLIANDA.

### Shasta and West Side Divisions

Two G. M.'s have just been approved for improvements and additions to the Willows Water Works. One calls for the purchase of a portion of the block adjacent to the present plant and the erection of a 100,000-gallon steel tank and tower, the cost being \$19,000. The other is for sinking a 16-inch well 600 feet with the installation of a deep-well turbine pump direct connected to a 75-horsepower motor. In addition, an auxiliary steam turbine belted to an electric generator as emergency equipment is provided. The cost will be about \$18,000.

The old water works and storage tanks

erected some thirty-five years ago, are to come down to make room for other improvements at the Gas Works and warehouse.

Construction of a connecting transmission line from Heroult to Bully Hill, about five miles, is in progress, making a complete 20,000 volt circuit from Kennett to Kilarc Power House; though the work has just begun it will be rapidly pushed to completion. This work became necessary to take care of a 1,200-horsepower installation of the Shasta Copper and Zinc Company. Heretofore their load amounted to about 100 horsepower.

Reconstruction of the Cottonwood-Redding 60,000-volt line is well on its way. The old aluminum line is being replaced with No. 1 strand copper.

Radio telephone communication between important points such as Oakland, Chico, Redding, Volta and the Hat Creek plants and, possibly, with the California-Oregon Power Company at the Fall Creek station, will, in the near future, be a reality. This will mean an assured method of communication and, besides this, the maintenance cost will be less than that of a metallic circuit, while service will be more reliable and expeditious, especially so since recent improvements on radiophone devices.

On February 8th at 10 a. m., by prearrangement, an attempt was made by Mr. Keesling of San Francisco, to get in radiograph touch with our man, William Briggs, manager of the Anderson office, who has been operating a wireless set successfully for a number of years; but due to incorrect adjustments no connections were established, though Briggs' signals were picked up by Sacramento and Burlingame parties. District Manager G. R. Milford and Superintendent W. E. Wilson were present at the Anderson station during the test. Briggs has had some sixteen years of experience and is considered an authority on radio. At present he is installing an up-to-date radio telephone set. In the past he has listened to the orchestra and pipe-organ at the California Theater in San Francisco as plainly as if he were in the theater. He has also heard the Avalon operator talking on the mainland. Mr. Milford enjoyed the same experience.

Our substation tender, Mr. Foster of Cottonwood, who is a recent amateur, has also been successful in listening in on wireless conversations.

Clarence Brown of Volta powerhouse, with some three years' successful experience, is completing and installing a new transmitting set, expecting to have it in full operation in the near future. He is also making arrangements so as to be able to connect to any ordinary telephone line whereby parties twenty miles away may talk to the transmitting station and thence by wireless one hundred or more miles, likewise receiving.

Should wireless telephone turn out to be a success on our system, as no doubt it will, we can then enlarge our "P" in "Pacific" and "S" in "Service."

BEN W. GLOSER.

### ❖ San Francisco Division

The Industrial Department of the Gas Sales Bureau of San Francisco division reports exceptional activity in restaurants, hotels, clubs and hospitals.

Some time ago we installed two large Lang ranges in the kitchen of Bergez-Franks Restaurant, 427 Bush street. This is one of the largest French restaurants in San Francisco and the oldest established. The installation is something to be proud of in many ways: First, the people had always used other fuel and were very hard to convince that gas was the ideal fuel for their purpose; second, the installation of these ranges; third, the gas consumption; fourth, a satisfied consumer; fifth, a contented chef; sixth, a better kitchen.

To give you an idea how we handle a job like this with the men of the Industrial Department of San Francisco: As soon as we have the order, we take a plumber on the job and show him what gas piping there is to run. He installs all the pipe, bringing it through at the end of the ranges with valves on the same, then the meter man sets his meter and turns on the gas; now we are all ready to take down the old range. We find out from the chef what time we can disconnect his old ranges. In this case we were allowed to start at 9 p. m. Five men were on the job with crowbars, picks, shovels, wheel barrows and a large motor truck to receive the old brick and iron; at 9 o'clock they started tearing down the old red-hot range and wheeling it out into

the truck. After the old range was removed the truck drove away and we were through with that part of the job and the street was as clean as it was when we started.

Now to set up the new gas ranges and connect with gas pipe. This brings us in the wee hours of the morning and everybody is tired and sleepy. We light up the ranges and regulate burners; if the gas orifices are too large, which they generally are, we have another set which we install, finished and ready for cooks.

After years of hard labor in this department we are beginning to realize results. Hotels, hospitals, club and restaurants are beginning to wake up to the fact that gas is the ideal fuel for cooking.

R. H. GODFREY.

### GAS GENERATION DEPARTMENT

The heavy winter load is past for this year. There were no extraordinary peak days, but a substantial increase in January over last year. There were no failures or accidents of any kind to cause serious trouble, everything running smoothly all winter.

The men at Metropolitan Station are now enjoying their new locker and wash-room, completed in February. The scrubbers and purifiers have been touched up with a new coat of paint. When the recommendations of the Division Safety Committee have been carried out and a few other improvements made, this plant will rank much nearer to Potrero and others in class A-1.

The Gas Generation Department boasts three "old timers" on the payroll, of whom everyone is proud. "Dick" Malone, superintendent of North Beach Gas Station, is rounding out his forty-fourth year of continuous service; "Johnnie" Keenan, pressure tender at Potrero, will soon have completed his forty-fifth year in the gas business, and looks as though he should live to celebrate his 90th birthday, at least; the foreman mason at Potrero, "Jimmie" Cunningham, starts this month on his fiftieth year, every day of all that time right here in Potrero Station. In March, 1872, at the age of seventeen years, James started helping his father, who was a brick mason, and in March, 1922, he expects to retire and leave Potrero to the care of others.

JAS. DICKEY.



## Power for Good

**E**LECTRIC power is power for good in developing the agricultural possibilities of California. Today there are thousands of acres awaiting the coming of electric power for irrigation purposes.

You can help make California fields productive and can get a safe profitable investment by placing your funds in California hydro-electric securities.

By investing your funds in California hydro-electric securities you not only help make our fields more productive, more valuable, and able to support a greater population, but you get safety of principal and certainty of a good income on your investment.

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WITH WHITE INSULATING JACKET

*Ornamental, Perfect in Operation  
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Water Heater business  
Sizes to meet the smallest to the largest  
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A Willing, generous service, cheerful in spirit—helpful  
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It Is our purpose to render a service that will demon-  
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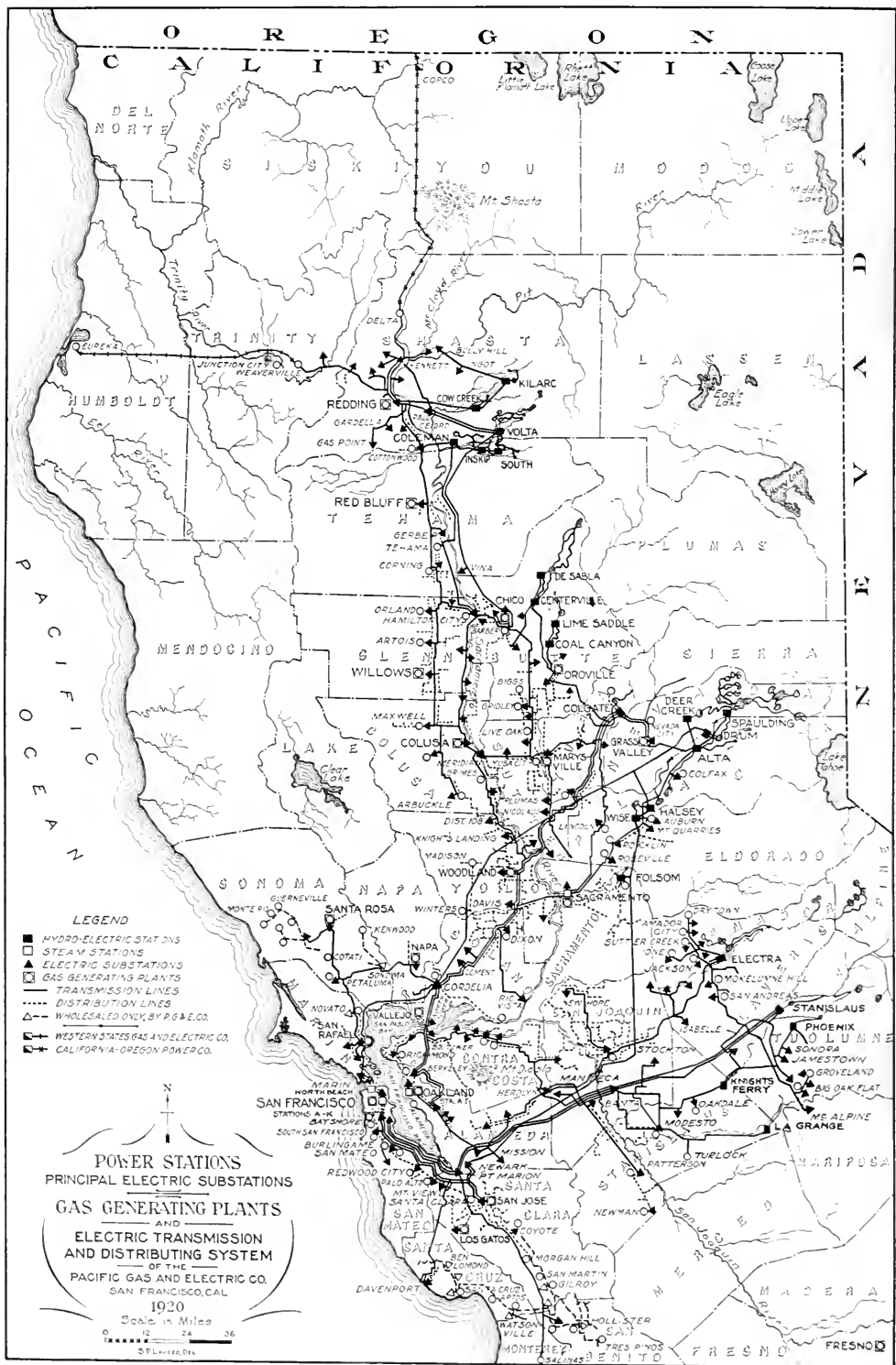
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TO OVER 569,000 CONSUMERS OF

### GAS • ELECTRICITY • WATER • STREET RAILWAY

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,875	8	19,500	25	86,175
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda .....	30,000	<sup>1</sup> El Verano .....	400	<sup>1</sup> Milpitas .....	350	<sup>1</sup> San Pablo .....	500
<sup>1</sup> Albany .....	2,300	<sup>1</sup> Emeryville .....	3,000	<sup>1</sup> Mission San Jose .....	500	<sup>1</sup> San Quentin .....	2,500
<sup>1</sup> Alvarado .....	700	<sup>1</sup> Escalon .....	500	<sup>1</sup> Modesto .....	14,000	<sup>1</sup> San Rafael .....	6,000
<sup>1</sup> Alviso .....	350	<sup>1</sup> Esparto .....	250	<sup>1</sup> Mokelumne Hill .....	300	<sup>1</sup> Santa Clara .....	6,000
<sup>1</sup> Amador City .....	1,100	<sup>1</sup> Fairfax .....	250	<sup>1</sup> Monterey .....	6,300	<sup>1</sup> Santa Cruz .....	13,600
<sup>1</sup> Anderson .....	800	<sup>1</sup> Fairfield .....	1,000	<sup>1</sup> Morgan Hill .....	750	<sup>1</sup> Santa Rosa .....	11,000
<sup>1</sup> Angel Island .....	280	<sup>1</sup> Fair Oaks .....	300	<sup>1</sup> Mountain View .....	2,500	<sup>1</sup> Saratoga .....	300
<sup>1</sup> Antioch .....	2,000	<sup>1</sup> Fall River Mills .....	500	<sup>1</sup> Mt. Eden .....	210	<sup>1</sup> Sausalito .....	3,000
<sup>1</sup> Aptos .....	300	<sup>1</sup> Farmington .....	400	<sup>1</sup> Napa .....	6,500	<sup>1</sup> Sebastopol .....	1,950
<sup>1</sup> Arbuckle .....	700	<sup>1</sup> Felton .....	300	<sup>1</sup> Nevada City .....	2,900	<sup>1</sup> Shasta .....	500
<sup>1</sup> Atherton .....	250	<sup>1</sup> Folsom .....	2,000	<sup>1</sup> Newark .....	505	<sup>1</sup> Shelbyville .....	200
<sup>1</sup> Auburn .....	2,800	<sup>1</sup> Forestville .....	225	<sup>1</sup> Newcastle .....	950	<sup>1</sup> Sheridan .....	250
<sup>1</sup> Barber .....	500	<sup>1</sup> Fresno .....	48,867	<sup>1</sup> Newman .....	1,200	<sup>1</sup> Smartsville .....	300
<sup>1</sup> Belmont .....	375	<sup>1</sup> Gilroy .....	2,900	<sup>1</sup> Niles .....	1,000	<sup>1</sup> Soledad .....	600
<sup>1</sup> Belvedere .....	550	<sup>1</sup> Glen Ellen .....	900	<sup>1</sup> Novato .....	400	<sup>1</sup> Soquel .....	1,400
<sup>1</sup> Benicia .....	2,400	<sup>1</sup> Gonzales .....	650	<sup>1</sup> Oakdale .....	2,100	<sup>1</sup> Sonoma .....	1,790
<sup>1</sup> Ben Lomond .....	800	<sup>1</sup> Grass Valley .....	5,200	<sup>1</sup> Oakland .....	225,000	<sup>1</sup> Sonoma .....	3,000
<sup>1</sup> Berkeley .....	65,000	<sup>1</sup> Gridley .....	1,800	<sup>1</sup> Oakley .....	200	<sup>1</sup> South San Francisco .....	3,750
<sup>1</sup> Biggs .....	500	<sup>1</sup> Grimes .....	350	<sup>1</sup> Occidental .....	600	<sup>1</sup> Standard .....	300
<sup>1</sup> Bolinas .....	200	<sup>1</sup> Groveland .....	250	<sup>1</sup> Orland .....	836	<sup>1</sup> Stanford University .....	2,600
<sup>1</sup> Brentwood .....	500	<sup>1</sup> Guerneville .....	780	<sup>1</sup> Oroville .....	5,000	<sup>1</sup> Stockton .....	42,000
<sup>1</sup> Broderick .....	600	<sup>1</sup> Hamilton City .....	200	<sup>1</sup> Pacheco .....	250	<sup>1</sup> Suisun .....	800
<sup>1</sup> Burlingame .....	4,000	<sup>1</sup> Hammononton .....	500	<sup>1</sup> Pacific Grove .....	2,900	<sup>1</sup> Sunol .....	340
<sup>1</sup> Byron .....	450	<sup>1</sup> Hayward .....	4,000	<sup>1</sup> Palo Alto .....	6,000	<sup>1</sup> Sunnyvale .....	1,650
<sup>1</sup> Campbell .....	700	<sup>1</sup> Hillsborough .....	950	<sup>1</sup> Paradise .....	500	<sup>1</sup> Sutter City .....	250
<sup>1</sup> Capitola .....	275	<sup>1</sup> Hollister .....	2,500	<sup>1</sup> Patterson .....	500	<sup>1</sup> Sutter Creek .....	1,300
<sup>1</sup> Carmel .....	600	<sup>1</sup> Ione .....	1,000	<sup>1</sup> Penn Grove .....	300	<sup>1</sup> Tehama City .....	221
<sup>1</sup> Cement .....	1,000	<sup>1</sup> Irvington .....	800	<sup>1</sup> Penryn .....	250	<sup>1</sup> Tiburon .....	350
<sup>1</sup> Centerville .....	850	<sup>1</sup> Jackson .....	2,100	<sup>1</sup> Perkins .....	250	<sup>1</sup> Tracy .....	2,000
<sup>1</sup> Ceres .....	250	<sup>1</sup> Jamestown .....	600	<sup>1</sup> Petaluma .....	7,500	<sup>1</sup> Tres Pinos .....	300
<sup>1</sup> Chico .....	15,000	<sup>1</sup> Kennett .....	1,200	<sup>1</sup> Piedmont .....	3,500	<sup>1</sup> Tuolumne .....	1,000
<sup>1</sup> Colfax .....	500	<sup>1</sup> Kentfield .....	500	<sup>1</sup> Pike City .....	200	<sup>1</sup> Turlock .....	4,500
<sup>1</sup> College City .....	325	<sup>1</sup> Kenwood .....	200	<sup>1</sup> Pinole .....	1,800	<sup>1</sup> Yacaville .....	1,250
<sup>1</sup> Colma .....	1,800	<sup>1</sup> Kewick .....	1,800	<sup>1</sup> Pittsburg .....	6,000	<sup>1</sup> Yale .....	15,500
<sup>1</sup> Columbia .....	250	<sup>1</sup> King City .....	1,500	<sup>1</sup> Pleasanton .....	1,500	<sup>1</sup> Vina .....	300
<sup>1</sup> Colusa .....	2,000	<sup>1</sup> Knights Ferry .....	250	<sup>1</sup> Port Costa .....	1,000	<sup>1</sup> Vineburg .....	200
<sup>1</sup> Concord .....	850	<sup>1</sup> Knights Land- ing .....	400	<sup>1</sup> Princeton .....	300	<sup>1</sup> Walnut Creek .....	500
<sup>1</sup> Coram .....	666	<sup>1</sup> La Grange .....	260	<sup>1</sup> Red Bluff .....	3,530	<sup>1</sup> Warm Springs .....	200
<sup>1</sup> Cordelia .....	300	<sup>1</sup> Larkspur .....	2,000	<sup>1</sup> Redding .....	3,572	<sup>1</sup> Waterford .....	300
<sup>1</sup> Corning .....	972	<sup>1</sup> Lewiston .....	200	<sup>1</sup> Redwood City .....	4,200	<sup>1</sup> Watsonville .....	6,000
<sup>1</sup> Corte Madera .....	350	<sup>1</sup> Lincoln .....	1,500	<sup>1</sup> Richmond .....	16,500	<sup>1</sup> Wheatland .....	500
<sup>1</sup> Cotati .....	200	<sup>1</sup> Live Oak .....	300	<sup>1</sup> Rio Vista .....	1,000	<sup>1</sup> Williams .....	625
<sup>1</sup> Cottonwood .....	400	<sup>1</sup> Livermore .....	2,500	<sup>1</sup> Ripon .....	300	<sup>1</sup> Willows .....	1,139
<sup>1</sup> Coyote .....	200	<sup>1</sup> Lomita Park .....	450	<sup>1</sup> Riverbank .....	400	<sup>1</sup> Winters .....	1,200
<sup>1</sup> Crockett .....	3,000	<sup>1</sup> Loomis .....	450	<sup>1</sup> Rocklin .....	900	<sup>1</sup> Woodland .....	5,000
<sup>1</sup> Crow's Landing .....	500	<sup>1</sup> Los Altos .....	500	<sup>1</sup> Rodeo .....	400	<sup>1</sup> Woodside .....	225
<sup>1</sup> Daly City .....	5,500	<sup>1</sup> Los Gatos .....	3,000	<sup>1</sup> Roseville .....	4,200	<sup>1</sup> Yolo .....	350
<sup>1</sup> Danville .....	400	<sup>1</sup> Los Molinos .....	200	<sup>1</sup> Ross .....	900	<sup>1</sup> Yuba City .....	1,750
<sup>1</sup> Davenport .....	300	<sup>1</sup> Madison .....	250	<sup>1</sup> Sacramento .....	76,000		
<sup>1</sup> Davis .....	1,700	<sup>1</sup> Manteca .....	2,500	<sup>1</sup> Salinas .....	5,500		
<sup>1</sup> Decoto .....	300	<sup>1</sup> Mare Island .....	500	<sup>1</sup> San Andreas .....	750		
<sup>1</sup> Del Monte .....	300	<sup>1</sup> Martinez .....	3,500	<sup>1</sup> San Anselmo .....	3,000		
<sup>1</sup> Denair .....	200	<sup>1</sup> Marysville .....	6,000	<sup>1</sup> San Bruno .....	1,500		
<sup>1</sup> Dixon .....	1,200	<sup>1</sup> Maxwell .....	480	<sup>1</sup> San Francisco .....	550,000		
<sup>1</sup> Drytown .....	225	<sup>1</sup> Mayfield .....	1,100	<sup>1</sup> San Jose .....	45,000		
<sup>1</sup> Duncan's Mills .....	200	<sup>1</sup> Menlo Park .....	1,100	<sup>1</sup> San Juan .....	550		
<sup>1</sup> Durham .....	300	<sup>1</sup> Meridian .....	225	<sup>1</sup> San Leandro .....	5,000		
<sup>1</sup> Dutch Flat .....	750	<sup>1</sup> Millbrae .....	300	<sup>1</sup> San Lorenzo .....	400		
<sup>1</sup> Eldridge .....	500	<sup>1</sup> Mill Valley .....	350	<sup>1</sup> San Martin .....	200		
<sup>1</sup> El Cerrito .....	1,200			<sup>1</sup> San Mateo .....	6,000		
<sup>1</sup> Elmira .....	350						

Unmarked—Electricity only.  
<sup>1</sup>—Gas only.  
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<sup>1</sup>—Electricity and Water.

<sup>1</sup>—Electricity supplied through other companies.  
<sup>1</sup>—Gas supplied through other companies.  
<sup>1</sup>—Water supplied through other companies.

### "PACIFIC SERVICE" FACTS:

Number of Electric Consumers .....	267,720
Number of Gas Consumers .....	286,355
Number of Water Consumers .....	15,244
Number of Steam Consumers .....	457

Total number of consumers .....

Operates 24 Hydro-Electric Power Plants. Operates 4 Steam-Electric Power Plants.  
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many classes of  
high-grade Bonds  
today will yield as  
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National City Bank Building, New York

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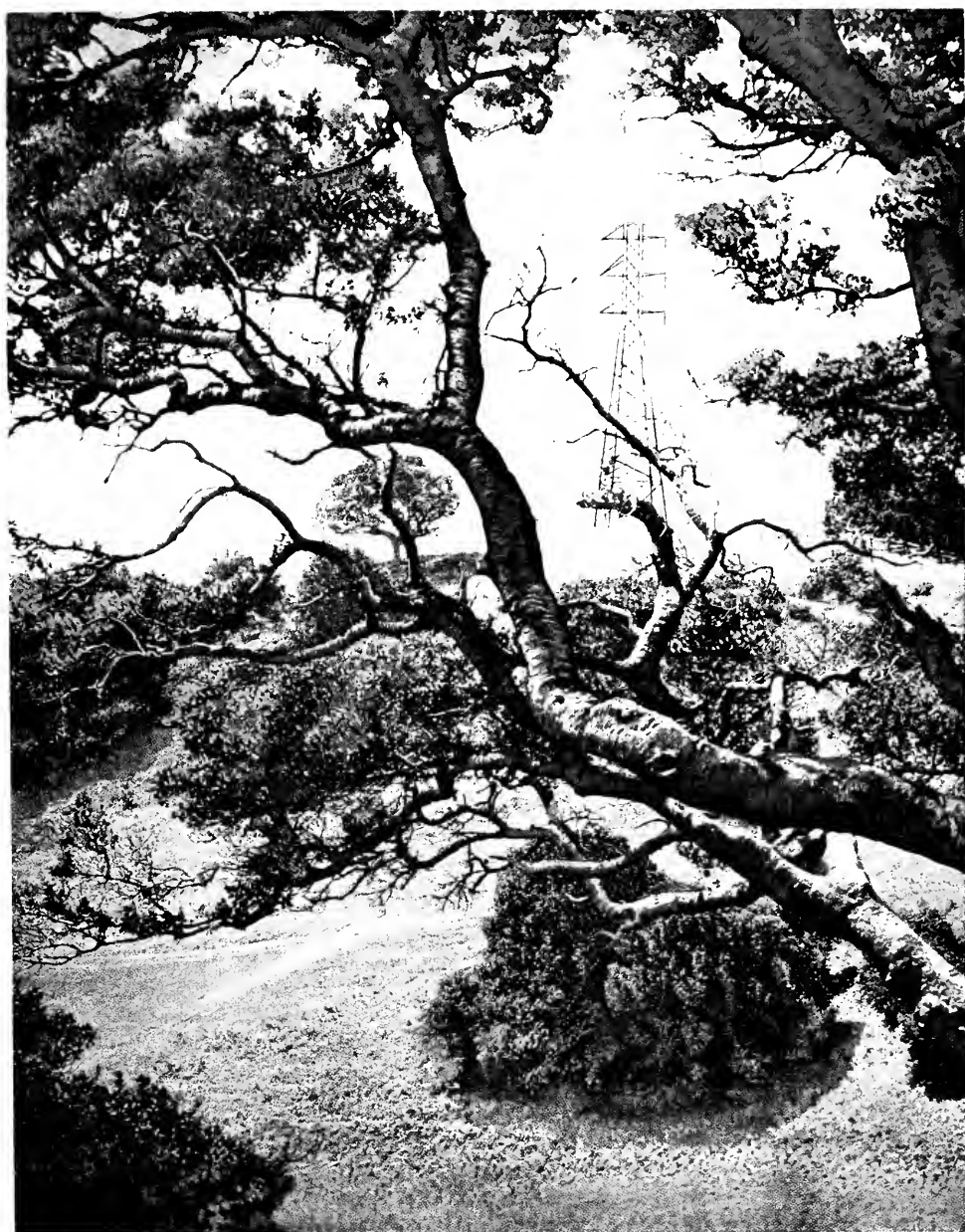
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SAN FRANCISCO



# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



"PACIFIC SERVICE" CROSSING THE MARIN HILLS NEAR SAN RAFAEL

Vol.  
12

APRIL 1921

No  
11



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D. H. FOOTE  
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JOHN A. McCANDLESS  
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F. A. LEACH, JR.  
CHAS. L. BARRETT  
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*Second Vice-President and Treasurer*  
*Secretary and Assistant Treasurer*  
*Vice-President in Charge of Electrical Construction and Operation*  
*Vice-President in Charge of Public Relations and Service*  
*Assistant Secretary*  
*Assistant Treasurer*

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E. H. STEELE  
F. R. GEORGE  
GEO. H. BRAGG  
GAS DEPARTMENT  
R. S. FULLER  
H. J. SMITH  
LAW DEPARTMENT  
RATE DEPARTMENT  
AUDITING DEPARTMENT  
E. W. HODGES  
CLAIMS DEPARTMENT  
CREDIT DEPARTMENT  
COMMERCIAL DEPARTMENT  
LAND AND TAX DEPARTMENT  
PROPERTY DEPARTMENT  
PUBLICITY DEPARTMENT  
PURCHASING DEPARTMENT  
SUPPLY DEPARTMENT

A. H. MARKWART, Director of Engineering  
Chief of Division of Hydro-Electric and Transmission Engineering  
Chief of Division of Electric Distribution and Steam Engineering  
Chief of Division of Civil Engineering  
Superintendent of Bureau of Specifications and Estimates  
Superintendent of Bureau of Tests  
F. G. BACUM  
W. G. VINCENT, JR.  
Valuation Engineer of Electric Properties  
Valuation Engineer of Gas, Water and Railway Properties  
Rate Engineer  
Engineer of General Construction  
Engineer of Line Construction  
Engineer of Operation  
Engineer of Maintenance  
W. S. YARD, Engineer  
Field Engineer  
Construction Engineer  
W. B. BOSLEY, Attorney  
C. P. CUTTEN, Attorney  
R. R. REIDFORD, General Auditor  
Assistant Auditor  
J. P. COGHLIN, Attorney  
GEO. H. RAND, Manager  
R. E. FISHER, Manager  
E. B. HENLEY, Manager  
R. J. CANTRELL, Manager  
F. S. MYRTLE, Manager  
JOHN H. HUNT, Purchasing Agent  
GEO. C. ROBB, Superintendent

## DIVISIONS AND MANAGERS

DIVISIONS AND DISTRICTS  
COLGATE DIVISION  
DE SABLE DIVISION  
DRUM DIVISION  
Nevada District  
EAST BAY DIVISION  
Berkeley District  
FRESNO DIVISION  
NORTH BAY DIVISION  
Napa District  
Santa Rosa District  
Vallejo District  
SACRAMENTO DIVISION  
Sacramento District  
Solano District  
Yolo District  
SAN FRANCISCO DIVISION  
SAN JOAQUIN DIVISION  
Modesto District  
Stockton District  
SAN JOSE DIVISION  
Redwood District  
SHASTA DIVISION  
WEST SIDE DIVISION  
Willows District  
Red Bluff District

MANAGERS  
E. C. JOHNSON  
I. B. ADAMS  
H. M. COOPER  
L. H. HARTSOCK  
L. H. NEWBERT  
J. H. PAPE  
H. C. ROSS  
H. G. RIDGWAY  
C. D. CLARK  
M. G. HALL  
A. J. STEPHENS  
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C. W. MCKILLIP  
C. E. SEDGWICK  
J. W. COONS  
HENRY ROSTWICK  
CHAS. S. NORTHCUTT  
C. R. GILL  
J. H. FAGG  
JOHN D. KUSTER  
W. T. KELLOGG  
G. R. MILFORD  
H. B. HERYFORD  
CLIFFORD BARTLETT  
CHAS. HUGHES

HEADQUARTERS  
Marysville  
Chico  
Auburn  
Nevada City  
Oakland  
Berkeley  
Fresno  
San Rafael  
Napa  
Santa Rosa  
Vallejo  
Sacramento  
Sacramento  
Dixon  
Woodland  
San Francisco  
Modesto  
Modesto  
Stockton  
San Jose  
Redwood City  
Redding  
Red Bluff  
Willows  
Red Bluff

# Pacific Service Magazine

Volume XII



Number 11

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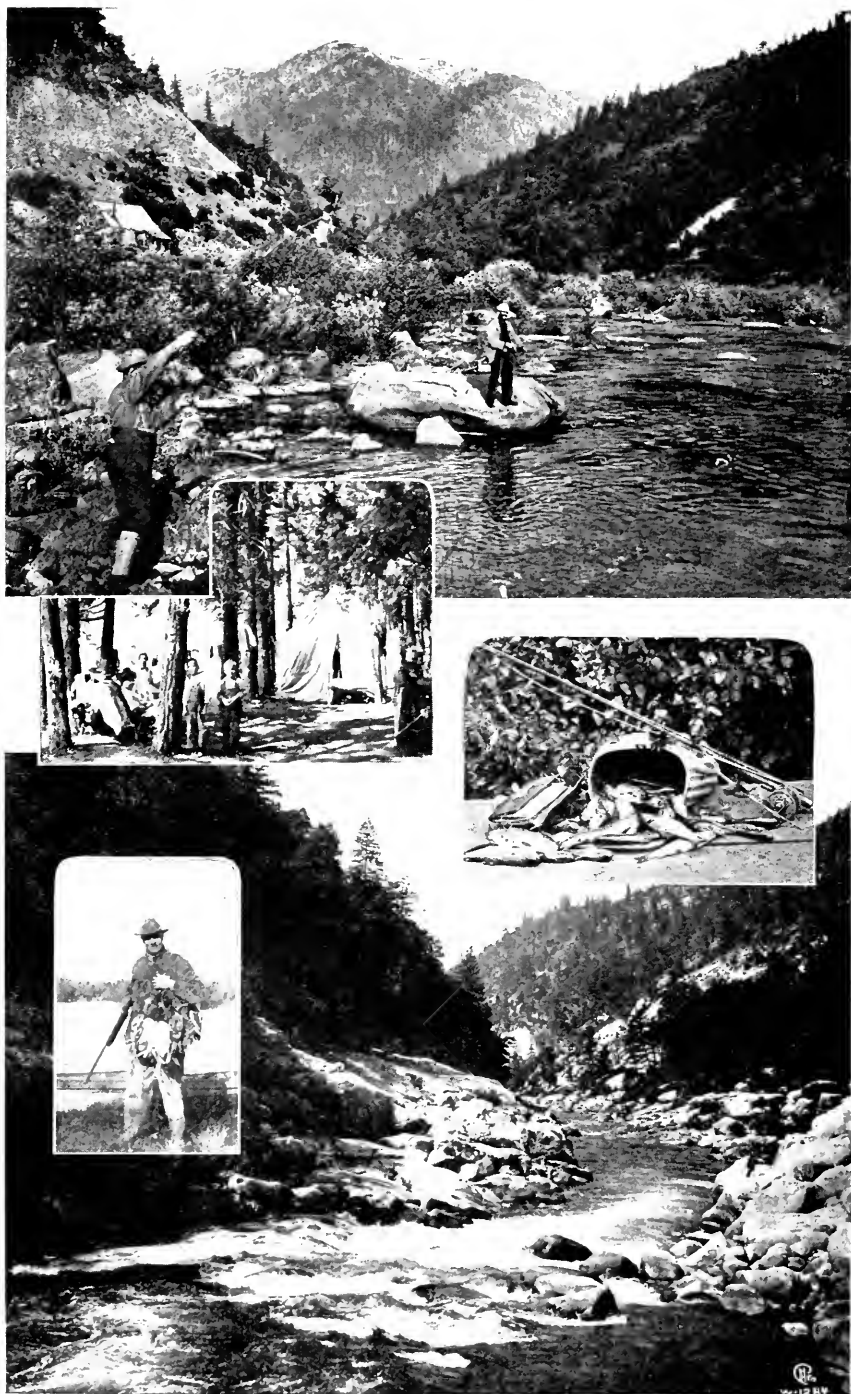
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In the "Pacific Service" Territory  
 These pictures tell their own story of out-of-door life in Butte County.

# PACIFIC SERVICE MAGAZINE

Volume XII

APRIL, 1921

Number 11

## *The "Pacific Service" Record for 1920*

*Remarkably good showing made in the face of the worst power shortage  
the State of California has ever experienced—Company's  
finances in excellent condition, and prospects  
for 1921 unusually bright*

THE annual meeting of our company's stockholders was held on the afternoon of Tuesday, April 12th, at 445 Sutter street, San Francisco. Reports of the company's activities for the year just closed were presented by Vice-President and General Manager John A. Britton and Second Vice-President and Treasurer A. F. Hockenbeamer, respectively, the first dealing with the operating and the second with the financial features of the "Pacific Service" record for 1920.

The past year undoubtedly tried our company's physical resources more than any that had gone before. A succession of dry winters had made the water supply a serious problem, so serious that the State Railroad Commission found it necessary to take hold of the power situation in Northern California and through the drastic action of its Power Administrator curtail all unnecessary and extravagant uses of the precious energy in the interest of staple industries whose uninterrupted prosecution was a vital necessity to the well-being of the entire commonwealth. Fortunately for all concerned, our State was visited with a generous precipitation quite early in the fall, so that before the year closed the danger of actual disaster

was happily averted. Furthermore, as is generally known, developments are now in progress in the northern section of our "Pacific Service" territory whose completion, it is expected, will put aside forever all fear of such a power shortage as threatened to paralyze industry generally in the year that is past. At the time of writing the prospects are excellent for a glorious year in 1921, a year that should be marked by unusual activity in every direction that makes for the progress and development of our State whose natural resources are second to none in the Union.

The record made by our company for 1920, then, under the circumstances and conditions above referred to, is one of which our company has reason to be proud. The financial report revealed remarkably healthy conditions and was most encouraging in every particular. That the administration of "Pacific Service" gave general satisfaction to the stockholders was indicated at the annual meeting by the unanimous re-election of the old directors for the ensuing twelve-month.

The reports of Messrs. John A. Britton and A. F. Hockenbeamer are given herewith.—EDITOR PACIFIC SERVICE MAGAZINE.

## Report of Mr. John A. Britton

The company's operations now embrace 36 counties in the North-Central part of the State, with an estimated population served of 2,000,000.

In its activities it uses 677 motor vehicles and employs at the present time 6,800 men and women.

It contributes to the material wealth of the State, in payment of services rendered and materials purchased and disbursement of dividends and bond interest, upwards of 30 million dollars annually.

It owns in fee 96,737 acres of land in the State and operates 28 power plants and 20 gas plants.

It has been the pioneer in long-distance high-tension transmission, in regulation of energy by means of load dispatchers, in high-head development in water-power plants, in publication of a house organ, in sales to consumers of its securities. It has made possible, through the flexibility and diversity of its system, the longest interconnected series of electric systems in the world. It is now building the highest voltage lines, namely, at 220,000 volts. It pioneered the oil gas process and system of high-pressure gas distribution, and many other noteworthy and economic procedures.

It has an employees' pension plan, an Employees' Association of 3900 members banded together as an independent organization for educational and social purposes. Finally, it aims to represent service in its fullest expression to its consumers.

The continued drought during the year affected the Electric Department revenues of the company due to shortage of power and increased operating expenses by the reason of the necessity of a maximum operation of steam plants. The Gas Department expenses were likewise

increased because of increased oil costs. Details of these expenses will appear later.

I mention at this point a few of the most important incidents occurring during the year.

January 1, 1920—Merging into P. G. & E. system of the leased property of Sierra and S. F. Power Company.

January 1, 1920—Commencement of Second Circuit on Wise towers from Newark to Wise Power House—170 miles, completed January 1, 1921.

August 1, 1920—Commencement of work on 10,000 H.P. at Spring Gap, on Stanislaus River—an addition to Sierra and S. F. Power Company's system—to be completed July 15, 1921.

October 15, 1920—Tie in with system of San Joaquin Light and Power Corporation.

October 27, 1920—Completion of Spaulding Plant No. 2—1,333 H.P.

July 10, 1920—15 per cent surcharge on electric rates granted by Railroad Commission.

July 24, 1920—General increase in gas rates and establishment of fixed schedules.

June 1, 1920—Commencement of work on Hat Creek Plants Nos. 1 and 2; installed capacity, 33,333 H.P.—to be completed July 15, 1921.

November 1, 1920—Commencement of work on Pit River Plant No. 1—93,700 H.P.—to be completed in spring of 1922.

July 1, 1920—Commenced work on steam turbine in Station "C," Oakland—16,600 H.P.—completed March, 1921.

July 1, 1920—Commenced work on H.P. gas transmission line from Sacramento to Woodland.

The total number of consumers served on December 3, 1920, was as follows:

		Gain Over 1919.
Electric .....	266,132	30,413
Gas .....	286,542	16,672
Water .....	16,234	1,591
Steam .....	451	8
Total .....	569,359	48,684

The total amount expended for labor in the year was \$10,918,759—an increase over 1919 of \$3,804,515.

The average number of employees in 1920 was 6,517, including executive officers, and the average monthly wage paid to each employee was \$139.59.

Plant betterments recorded for the year 1920 from all branches of the company's operating activities amounted in the aggregate to \$11,314,609.64. From this amount may be deducted allowances for abandoned properties amounting to \$713,190.15, leaving a net amount for plant betterments of \$10,601,419.49.

The total gross income for 1920 from sales of electric energy, gas, water,

steam, and operation of street railway system in Sacramento, was \$34,475,-371.69, divided as follows:

% of Total.		Increase Over 1919.
62.5	Electric .....\$21,553,632.00	\$7,078,748.00
	Average revenue per consumer .....	81.00 19.68
32.4	Gas ..... 11,161,682.00	1,228,318.00
	Average revenue per consumer .....	38.95 2.14
1.8	Water ..... 638,336.00	97,729.00
1.1	Steam ..... 351,005.00	32,563.00
2.2	Railway ..... 753,027.00	81,923.00
	Operating expenses, \$25,238,901.68,	

—% of gross 73%+, consisting of:

Labor .....	\$7,970,543.10	
Oil .....	8,869,636.27	
Taxes .....	2,558,799.43	
		\$19,398,978.80
Reserves .....	\$2,107,302.01	
Rentals .....	943,295.83	
Maintenance, etc. . .	2,789,325.04	

Operating ratio in 1919, 68%+.

The total oil used in all departments during the year 1920 was 4,792,700 barrels, of which 629,435 barrels were consumed by the Sierra and San Francisco Power Company at the North Beach Steam Plant in San Francisco. Deducting this latter amount from the total barrels used gives an amount of 4,163,-265 barrels of oil used by all departments of the Pacific Gas and Electric Company exclusive of the Sierra and San Francisco Power Company, an increase over 1919 of 358,839 barrels or 9.43%. For the year 1920, 2,435,029 barrels of oil were used for generating electric power, and 2,357,671 in the manufacture of gas.

Oil increased from \$.685 per barrel in 1916 to \$1.81 in March, 1920, an increase of \$1.35 per barrel or 166.2%, and increased in July to \$1.93 per barrel, an increase of \$.12.

#### PRODUCTION OF ELECTRIC ENERGY IN K.W.H. 1920

	P. G. & E. CO.	S. & S. F. PR. CO.	TOTAL.
Hydro ...	697,531,114	164,187,584	861,718,698
Steam ...	370,048,460	117,848,300	487,896,760
Purchased	93,361,301	32,701,914	126,063,215
Total	1,160,940,875	314,737,798	1,475,678,673

	P. G. & E. Co. 1919	P. G. & E. Co. 1920	=P. G. & E. Co. Increase	PER-CENT
Hydro....	522,234,767	697,531,114	175,296,347	33.57
Steam....	330,914,990	370,048,460	39,133,470	11.83
Purchased	141,408,224	93,361,301	*48,046,923	

TOTAL.. 994,557,981 1,160,940,875 166,382,894  
#Exclusive of S. & S. F. Pr. Co. \*Decrease.

#### SALES OF ENERGY—K.W.H.

P. G. & E. Co., 1920—789,922,625.  
S. & S. F. Pr. Co., 1920—252,343,311.  
Total, 1920—1,042,265,939.  
P. G. & E. Co., 1919—658,449,344.  
Increase, 1920 (exclusive of S. & S. F. Pr. Co.), 131,473,281; per cent, 19.97.

The system load factor in 1920 was 61.9 as against 60.7 in 1919; the highest peak of the year occurred on December 22nd, of 347,190 H.P., and the average daily load on the system was 225,194 H.P.

#### CONNECTED LOAD AS OF DECEMBER 31, 1920.

P. G. & E. CO., 1920—	H. P.
Commercial and residence lighting .....	326,992
Street Lighting .....	6,616
Cooking and Heating .....	10,761
Industrial .....	198,813
Miscellaneous .....	168,510
Agricultural .....	135,357

Total 1920 .....	847,049
Total 1919 .....	773,808

Increase ..... 73.241 9.47%

The ratio between connected load and peak indicates that only 37.7% of the connected load was used at the same instant, and based on the average daily load but 24%.

By Marin cables there was transmitted to San Francisco during the year, 17,-285,420 K.W.H. and 25,868,900 K.W.H. from transmission via Martin, or 43,154,-320 K.W.H. in all, except the amount which was received from transmission via Bay Shore (S. & S. F. Pr. Co.) which was 111,311,590 K.W.H., making a total of 154,465,910 K.W.H. received from transmission. A total of 93,691,400 K.W.H. was delivered to transmission from Station "A" steam plant and 4,569,-100 K.W.H. from North Beach steam plant (S. & S. F. Pr. Co.), a total of 98,260,500 K.W.H. delivered to transmission from both steam plants in San Francisco.

The capacity of the plants of the company generating electric energy are as follows, expressed in horsepower:

#### HYDRO PLANTS

Alto, Placer County .....	2,681
Centerville, Butte County .....	8,579
Coal Canyon, Butte County .....	1,341
Coleman, Shasta County .....	20,107
Colgate, Yuba County .....	20,878
Cow Creek, Shasta County .....	2,011
DeSabra, Butte County .....	17,426
Deer Creek, Nevada County .....	7,373
Drum, Placer County .....	33,512
Electra, Amador County .....	26,810
Fall River Mills, Shasta County .....	1,274
Folsom, Sacramento County .....	4,021
Halsey, Placer County .....	16,756

Inskip, Tehama County .....	8,043
Kilare, Shasta County .....	4,021
*LaGrange, Stanislaus County .....	1,206
Lime Saddle, Butte County .....	2,681
*Phoenix, Tuolumne County .....	2,513
South, Tehama County .....	5,362
Spaulding No. 1, Nevada County .....	5,027
Spaulding No. 2, Nevada County .....	1,341
*Stanislaus, Tuolumne County .....	45,576
Volta, Shasta County .....	8,378
Wise, Placer County .....	16,756
	<u>263,673</u>

## STEAM PLANTS

San Francisco .....	85,791
Oakland .....	28,150
Sacramento .....	6,702
*North Beach .....	36,193
	<u>156,836</u>

Total .....420,509

\* S. & S. F. Pr. Co.

The following is a brief description of the electric distribution facilities for supplying the 266,132 consumers connected to the system:

	1920.
Miles of 110,000 volt line .....	499.50
Miles of 60,000 volt line .....	1,959.3
Miles of 24,000 volt line .....	190.3

Total High Tension Lines .....	2,649.10
Miles of overhead distribution lines (less than 20 K.V.) .....	6,841.77
Miles of underground distribution .....	133.51

Total .....9,626.38

Number of transformers connected with distribution system 31,499 having a capacity of 383,024 K.W., and 671,902 H.P. in transformers, installed in 227 substations.

The draft on storage in 1920 occurred as follows:

		Average for
		13 Years.
South Yuba .....	June 13	July 1
Electra .....	July 16	July 25
Relief .....	July 23	July 21
Strawberry .....	July 19	August 4

## GAS DEPARTMENT

In operation, 20 plants as follows:

	Sales in Cu. Ft.
San Francisco, 2 plants, supplying 8 cities and suburban territory .....	5,581,836,900
Oakland, supplying 8 cities and suburban territory .....	3,363,583,900
San Jose .....	327,708,200
Fresno .....	386,178,500
San Rafael, supplying 4 cities and suburban territory .....	98,491,500
Santa Rosa, supplying Petaluma, Sebastopol .....	109,662,900
Napa .....	39,218,000
Vallejo .....	120,738,600
Woodland .....	27,237,300
Chico, supplying 2 cities .....	43,523,600
Grass Valley, supplying Nevada City and suburban territory .....	17,120,800
Sacramento .....	401,983,000
Marysville, supplying Yuba City and suburban territory .....	10,608,900
Colusa .....	16,695,100

Oroville .....	19,883,900
Los Gatos .....	13,911,600
Red Bluff .....	8,315,700
Redding .....	10,158,800
Willows .....	14,792,800

Total sales in cu. ft., 1920.....10,644,650,000

To supply this amount of gas required 3,005.97 miles of gas mains of various sizes from 30" to 2", both high and low pressure operated at pressures from 70 pounds to 1/7 of a pound.

The increase in sales over 1919 was 860,397,600 cu. ft.—8.08%.

## STREET RAILWAY

Miles of track, 44.14. Passengers carried, 15,770,295—gain over 1919, 1,690,923 or 12%.

This was the peak year in the operation of the railway system. Jitney competition, commencing in 1914, resulted in diminished revenues; but this form of competition has spent itself by reason of local enactments, and the year 1920 showed a remarkable gain in business.

	1919.	1920.
Number of conductors and motormen, Dec. 31st....	218	231
Increase, 13 men.		
Total number of car miles run .....	3,228,316	3,210,112
The company has now in operation 10 one-man cars.		

## WATER DEPARTMENT

The company operates 8 pumping stations with a capacity of 41 million gallons daily—3 in the City of Stockton; 1 in Livermore, Alameda County; 1 in Dixon, Solano County; 1 in Redding, Shasta County, and 2 in Willows, Glenn County. It irrigates in addition, by a system of 70 reservoirs and 601 miles of ditches, over 20,000 acres of land in Placer, Nevada and Butte Counties, besides supplying water in those counties in a minor way for power.

Gallons of water pumped, 3,371,395,574. Daily average, 9,211,463. Miles of mains, 217, all sizes.

Gallons of water supplied through gravity system estimated at a daily average in irrigation season of 53,000,000 gallons.

## STEAM SALES

Number of stations operated .....	5
Miles of steam main in use.....	10.38
Number of consumers served .....	151

## CLAIMS AND SAFETY

The total cost for compensation, damages to persons and property, salaries and incidental department expense was \$135,257.25. (This does not include salaries and incidental expense of the Safety Department or expenditures for accident prevention.) Of this sum \$78,914.28 was paid out on account of industrial accidents, principally for compensation and medical care.

The total cost was \$43,032.46 greater than in 1919, in which year there was expended \$92,224.79. It was .392 per cent of the gross revenue as against .356 per cent in 1919. However, excepting 1919, and 1915 (which was also .392), the percentage was the lowest since we began keeping a percentage comparison in 1912.

The "manual rates" for compensation, casualty, automobile and like insurance, without provision for damages to property or to injuries on the Sacramento Street Railway, which are not subject to ordinary insurance, would have been in excess of \$650,000. Such insurance after the usual rebates and adjustments would have actually cost \$300,000.

The increase in cost over 1919 was due primarily to the added operations of the company following the acquisition of the Northern California and the Sierra properties and to the undertaking of the Pit River and other construction work, and secondarily to increased medical and hospital rates and to the fact that compensation payments increased with advancing wage rates.

In this connection it is worthy of note that the number of employees was 6514 as against 4976 in 1919, an increase of 1538; and that the total number of accidents reported was 2561 as against 1973 in 1919, an increase of 588.

It may be said that for the eight years the Compensation Act has been in effect we have taken only one case from the Industrial Accident Commission to the Supreme Court. In that (a case in-

volving alleged liability for injuries to an employee of an independent contractor) the judgment of the court was in our favor. This also I believe is an unusual record.

Accident prevention was carried on during the year along the lines laid down in 1914 and 1915. There were made 698 safety recommendations. This brings the total number of recommendations made since the beginning of our safety campaign up to a total of 9,488.

Owing to our taking over the plants of the Northern California and the Sierra systems it was necessary to spend more for safeguards than in 1919 or 1918, but less than in any other year. The expenditure was \$3,124.01 as against \$1,433.33 in 1919.

## OTHER DEPARTMENTAL ACTIVITIES

The activities of the Property Department have been materially increased during the year by reason of newly acquired properties. It has charge of fire protection and insurance of all properties, bonding of employees, stationery and printing requirements and charge of head office buildings.

To encourage the use by the public of the commodities which it manufactures, the company has a commercial department which not only seeks to secure new consumers but to procure additional use by all consumers, and to that end Divisions sell appliances including incandescent lamps—the gross sales of such appliances in 1920 was \$792,468.

It reports the following interesting facts:

Development of rice on 236,695 acres, revenue to this company approximately \$800,000; other crops, 1,700,000 acres under irrigation, using Pacific Gas and Electric power.

Fourteen hundred and fifty electric ranges installed, largely outside of gas territory, averaging a revenue each of \$5.25 per month; with heaters, approximately \$8.50 per month.



During the year the Rate Department took care of 55 applications before the Railroad Commission, the more important being the rate measures and financial applications. These applications did not include any of the matters dealing with informal complaints.

The Law Department has 36 suits pending before it; 22 were finally disposed of during the year. It co-operates with all departments in preparation of all necessary legal documents, and has charge of all matters necessitating court action.

A reorganization of the departments of the company was effected on November 1, 1920. Prominent features of this

include the appointment of a Vice-President in charge of Electrical Construction and Operation, a Vice-President in charge of Public Relations and Service, the creation of an Electrical Engineering Department separate from the Department of Electrical Construction and Operation, and the institution of a President's Advisory Board and Committees on Engineering and Employees' Welfare.

It is a pleasure to me to be able to again express my sincere appreciation of the loyal and effective work rendered by all officers and employees during the year.

## Report of Mr. A. F. Hockenbeamer

### OWNERSHIP OF COMPANY'S SECURITIES

On January 31, 1921, the ownership of the Company was vested in 15,735 stockholders, an increase since January 1, 1920, of 6,922, or 44%. Of these shareholders, 12,305, or 78%, lived in California and owned \$42,221,388, or 61% of the entire capital stock.

Including bondholders, there were on that date 40,331 investors in the Company's securities, the aggregate holdings of stocks and bonds by California people being \$104,005,088, or 59.4% of the total capitalization. The average holdings per investor were \$4,338.

### CAPITALIZATION

The capitalization of the Company at the close of the year was as follows:

	Par Value.	% of Total.
Bonds (including 5 yr. Notes)	\$95,758,600	58.8%
Preferred Stock (including stock subscribed for, but not fully paid..)	\$33,685,030	
Common Stock	34,001,058	67.689,088 41.2%
	\$163,447,688	100.0%

This is an increase during the year of:

Bonds	\$8,756,194
Preferred Stock	3,635,450
Common Stock	No change
Total Increase	\$12,391,644

The Company's funded debt was increased as follows during the year:

(a) Through the issuance and sale, for new construction and acquisitions, of five-year 7% collateral trust gold notes, dated May 1, 1920, of the par value of .....	\$10,000,000
(b) Through the issuance of Northern California Power Company, Consolidated, Refunding and Consolidated 5% Bonds, for the purpose of retiring the entire outstanding issue of Series "A," 6% Gold Debentures of the same Company, which matured on February 1, 1920 .....	437,000
Total Increase .....	\$10,437,000

The Company's funded debt was decreased as follows:

(a) Through the retirement of Northern California Power Company, Consolidated, 6% Gold Debentures .....	\$ 382,006
(b) Through the purchase for sinking funds of underlying bonds of the par value of .....	1,298,800
Total Decrease .....	1,680,806
Net Increase .....	\$8,756,194

The increase of \$3,635,450 in the amount of Preferred Stock outstanding reflects the continuation of the Company's policy of selling this security directly to employees, customers, and others living within its territory. The "Customer-ownership" plan was in-

augurated in June, 1914, and the results, bringing the figures down to date, have been as follows:

	No. of Sales.	Par Value.
1914 .....	3,739	\$8,801,300
1915 .....	1,712	3,785,100
1916 .....	617	1,123,100
1917 .....	650	890,000
1918 .....	192	156,000
1919 .....	52	35,900
1920 .....	3,670	3,635,050
1921 (to April 11) ..	2,841	3,126,550
Total .....	13,473	\$21,553,000

All of the proceeds of new securities issued during the year have been, or will be, used for additions, extensions, betterments and acquisitions necessary to meet the continuing growth of the Company's business. The results are reflected roughly in the following items of the Balance Sheet:

(a) Increase in the Plants and Properties Account from \$154,054,204 at December 31, 1919, to \$164,655,623 at December 31, 1920, an increase of.....	\$10,601,419
(b) Increase in Net Current Assets and Investments over Current Liabilities during the year of.....	2,737,612
A total increase of .....	\$13,339,031

#### SINKING FUNDS

At December 31, 1920, \$13,971,590 par value of underlying bonds of the Company had been retired through the operation of sinking funds. In addition, these sinking funds held \$364,400 Liberty Loan Bonds at par, and \$102,350 of uninvested cash and accrued interest, making total assets of \$14,438,340. The \$14,335,990 par value of bonds held in these sinking funds were acquired by the following means:

From Profits .....	\$12,801,790
By exchange for other Bonds.....	493,000
Proceeds from sale of Common Stock .....	1,041,200
Total .....	\$14,335,990

The net annual interest saving to the Company through the retirement of these bonds is at this time \$700,116, as compared with \$626,409 in 1919, an additional saving of \$73,707.

A saving of \$149,678, as against the payment at face value at maturity, was made in the purchase of \$1,298,800 of underlying bonds acquired for sinking fund purposes during the year.

#### CURRENT FINANCIAL CONDITION

Throughout the year 1920 the Company was able to continue the policy pursued by it for some years of conducting its business on a cash basis,

and it has at this time no floating debt except a small amount of notes taken over with the Northern California Power Company in the acquisition of that property, amounting to \$196,826.82. None of these notes has as yet matured.

By discounting all bills on which it was possible to secure cash discounts, the Company made a saving of \$43,940.88.

Cash on hand at the close of business on April 11, 1921, was \$10,789,734. This includes the entire proceeds of \$10,000,000 par value First and Refunding Bonds sold in January, 1921, which are as yet intact, and \$1,439,734 of other cash. In addition, the Company had in its treasury \$453,000 par value of its own underlying bonds bought in advance to satisfy sinking fund payments becoming due in 1921.

#### INCOME AND EXPENSES

As the Company's income account statement for the year 1920 has already been published, an extended review at this time seems unnecessary.

Bond interest, after the deduction of all maintenance and operating expenses, taxes and reserves, including reserve for depreciation, was earned 2.1 times. Preferred stock dividends, after the deduction of similar charges, and of all bond interest, were earned 2.2 times.

Out of every dollar of gross revenue, including miscellaneous income, there was paid out during the year:

	CENTS.	CENTS.
For oil .....	25.0	
For wages .....	22.5	
For taxes .....	7.3	51.8
For current purchased.....	2.0	
For materials and supplies and miscellaneous items .....	6.0	
For depreciation and other reserves .....	8.8	
For rentals .....	2.7	19.5
Total .....		74.3

This leaves a balance of 25.7c out of every dollar of gross as remuneration for the capital invested in the business. This balance was disposed of as follows:

	CENTS.	CENTS.
For bond interest .....	14.8	
For dividends .....	9.8	
Carried to Surplus .....	1.1	25.7
Total .....		\$1.00

# The Question of Public Ownership of the Public Service Companies

By W. E. CREED

*The following is the third of a series of short papers by our company's president on matters vital to the public service, particularly the problems in whose satisfactory solution the public service corporations and the public they serve are mutually concerned.*—EDITOR PACIFIC SERVICE MAGAZINE.

Many sweeping assertions are made and countless half-truths are uttered in behalf of public ownership of the public service industry. Seldom, if ever, do its advocates discuss calmly and without emotion those aspects of public ownership and operation disclosed by (a) the government's failure with the steam railroads, or the numerous other conspicuous failures, of which the Seattle street railways are the most recent example; (b) the invariable increase in number of employees; (c) the drop in the morale and efficiency of organization to about the level of government organization, for which the public pays; (d) the camouflaged accounting which conceals the facts about costs and relies upon the borrowing ability of government to meet emergencies and pay the piper; (e) the amount of public service cost covertly imposed on the taxpayer to secure popular support through the expedient of low rates, or (f) the serious burden added to the taxpayers' staggering load by the withdrawal of public service properties from taxation and the substitution of new taxes upon all other property to meet the loss of the public service taxes.

Here is ample material calling for sound thinking and the employment of the scientific attitude, but your public ownership man will have neither. He cries for the moon but never considers whether he can reach up and get it. Even if the argument for government ownership were convincing, there is still the question of its present possibility. As a matter of fact, it is utterly impossible at this time to bring about public ownership and operation of the public service properties with the exception of the comparatively few remaining privately owned water companies.

The only possibility of public ownership would be through the agency of the State itself as these great plants cover so large a territory and serve so vast a number of consumers that no

one municipality or group of municipalities or counties could possibly undertake the task they now perform and must continue to perform. To state the financial side of the matter alone is to convince any reasonable person that private ownership and operation must continue for a considerable time at least. If the State sought to purchase the properties now giving these services, it would require a huge sum of money in payment. While it is impossible definitely to state the sum required, it safely may be said that it would be over a billion dollars. The only way the State could obtain such a sum would be to issue bonds; and if California attempted to issue and sell a billion dollars of bonds, it would be utterly impossible to market these securities. The Federal government itself could not at this time issue a billion dollars of bonds and advantageously market them, and if the Federal government with its huge taxing possibilities could not, certainly no one State could.

With our State government demanding additional money for State expenditures, with the necessity recently of increasing the interest rate on State bonds for highway building to 6 per cent, with difficulty encountered in promptly marketing 40 or 50 million dollars of these bonds even at this high rate of interest, the contemplation of a billion dollars of bonds to be sold is foolish.

But aside from the enormous purchase price of these properties, if the State did acquire them, it would then be under the necessity of raising for power development alone between 500 and 800 million dollars in the next 10 years. This also would have to be done through the issuance of bonds and the market would be overwhelmed with State securities. At least some variety is demanded by the investment market.

If these difficulties could be surmounted, there would still be the necessity of properly conducting this business

after its acquisition by the State, and there is no governmental machinery provided for this purpose. It is not unfair to suggest that the State successfully accomplish its present business of running State government with reasonable efficiency and economy before it undertake the enormously more complicated task of conducting these huge enterprises with all their complicated technical requirements plus the absolute necessity of complete and adequate organization.

From an economic point of view, California needs right now, more than anything else, the unrestricted development of its railroads and power companies. The existing agencies for this development are the public service companies. They are organized and equipped for the work; they are proceeding with it and will continue provided they receive the public co-operation, support and encouragement which will sustain them. The process of development must not be delayed unless California wishes to delay the accomplishment of its destiny. Under these circumstances, to

"swap horses in midstream" is the peak of folly.

It would be safe to say if the public plunged into the business of owning and operating the public utility services of this State that before it finally worked out the problem of efficient and economical operation, there would be enormous loss and tremendous suffering, undoubtedly involving a serious setback to the State as a whole through the failure properly to develop the services adequately to meet the demands, plus the discredit of muddling and injuring the vital business of producing and distributing public utility service and the blunder of discouraging the flow of capital to California.

While the public service companies are in charge of this industry, it is folly on the part of the public to fail to sustain them and to give them every reasonable opportunity to conduct the business in the public interest. These companies should be looked upon as agents for the public; and surely an agent should be strong and virile properly to give service and attain the objects of the agency.



## *Tanning a Thriving Industry In Santa Rosa. Aided by "Pacific Service"*

By H. VAN HOOSEAR, Commercial Department.

Among the many industrial plants that have located in the City of Santa Rosa there are two that the city may well be proud of. On the banks of a stream that flows through the city on the upper end of Fourth Street stand the Levine Tannery and the Santa Rosa Shoe Factory, both owned and managed by Mr. Nathan Levine.

Mr. Levine started the tannery on a small scale in 1904, and by his foresight, industry and honesty has built up a prosperous business. Soon after starting the tannery he built a small shoe factory to utilize some of the leather he produced. This likewise prospered from the beginning until it was destroyed by the earthquake in 1906. The buildings were soon restored and the machinery put in operation, producing continuously, until a second disaster in the form of a fire in 1910 destroyed the plant. The marks of the fire were soon replaced by a number of new and larger factory buildings, with additions from year to year, until today a well equipped tannery and a modern shoe factory are housed in up-to-date, sanitary and well lighted buildings.

The first is devoted to the manufacture of heels and soles. The soles are cut out of the sides of leather by an electrically-driven press that forces a steel die the exact shape of the sole wanted through the hide, continuing the process until the best part of the leather is used up. The remaining part, consisting of the poorer sections, is cut out and built up into heels. Both are now ready to be used in the building up of the shoe that is done in the fabrication building, a two-story concrete structure of large dimensions that is equipped with all the modern kinds of electrically-driven machines used in the manufacture of shoes, arranged conveniently along each wall, where large windows give a flood of light assisting the operators at work on numerous semi-automatic machines, building up shoes that are as good as man and material can make.

The shoe factory is driven by eight motors, each belted to a line of shafting to which are connected various machines

arranged in groups according to the class of work they operate upon. About 350 pairs of shoes are made each day, requiring eighty operators to do the work. Some of the employees have been with the firm since it was first started. They all live in Santa Rosa and most of them own their homes, thereby helping to build up a permanent city growth.

Of the four main buildings of which the tannery consists, the receiving building is where the hides are delivered and the first part of the tanning process begins. A large portion of the floor is composed of tanks 8 feet wide, 8 feet long and 4 feet deep. Into a number of these tanks the hides are immersed in water to soak them so that they will be in a condition to be handled. After removing from these tanks each hide is divided into two equal parts by cutting it down the line of the back, making what is known as sides. These sides of raw hides are placed in the floor tanks and submerged in lime solution for a period of seven days. The lime loosens the hair from the hide and it is then removed by workmen using long two handled scraping knives which, contrary to belief, are kept as sharp as a stone can make them. By the skillful wielder the hide is seldom injured. After the hair is removed, the sides are taken to the tanning building for the second part of the process.



Shoe factory building.



Shoe factory finishing room.

The receiving building also houses the hair-reclaiming machinery, consisting of a washer for removing the lime, a large centrifugal extractor for disposing of the water and a dryer or evaporator to remove all moisture. The dry hair is then pressed into 400-lb. bales and shipped to eastern factories to be manufactured into horse blankets and collar pads, and some is mixed with other fibres and woven into cloth used in cheap clothing.

The tanning department is housed in a one-story building about 125 feet square, with the floor composed of tanks 4 feet wide, 6 feet long and 5 feet deep separated by narrow runways. About fifty sides of cleaned hides are placed in these tanks, first hanging loosely from the top by means of strings in a weak solution of tannic acid and left for a few days, and then packed flat one upon the other in a stronger solution to remain submerged for a period of from 60 to 90 days, during which time the tanning proper takes place. The tan bark used to produce the tannic acid in the process of tanning is peeled from the chestnut oak trees which grow in various parts of the country. In California they are found mostly in the Coast Range, mixed in with the redwood trees and on the tops of the ridges. The oak trees are felled and the bark is peeled off in 4 feet lengths, and when dry it is transported on mule back from the steep mountain side to convenient loading stations and then by truck, train or steamer to the tanneries. At the tannery the bark is ground in a Williams grinder driven by a 35 h. p. motor. The ground bark is elevated into tanks called leaches and mixed with hot water, thereby soaking out the tannic acid and producing a reddish

colored liquid that is drained off into the tanning vats.

The finishing of the leather is carried on in a large two-story building that is equipped with a large number of modern machines, including a leather splitter that divides the sides into two or more thin layers of various thickness, polishing machinery, machines for filling harness leather with grease to keep it soft and pliable, and a machine for pressing or packing sole leather so that it will be firm and tough. In this building is located a large storeroom for drying and storing the leather until it is ready for shipment. There is also a boiler room where a large installation of boilers are operated to furnish steam for use in the process of tanning and for heating the buildings. The fuel consists of refuse tan bark, leather scraps and a small amount of coal.

The mechanical energy for driving the tannery, as well as the shoe factory, is furnished by means of electric motors, and eleven of these are used, each driving a small group of machines placed in convenient locations throughout the buildings. Here "Pacific Service" steps in.

About ten thousand hides are used in the process of leather manufacture all the time and one thousand sides of leather are turned into a finished product each week, such as harness, collars, skirting and sole leather. Fifteen hundred cords of tan bark are consumed each year and fifty men are employed in the tannery to accomplish the work.

"Pacific Service" furnishes all the electric energy to operate these two plants, for both power and light. A special bank of transformers is located near the center of distribution, insuring continuous and efficient power requirements.



Office and shipping building.

# Naphthalene Complaints and Oil Scrubbing in San Francisco

By LOUISE MARIE AUBERT  
Former Chemist at the Potrero Gas Works

Naphthalene, one of the hydrocarbons formed in the manufacture of artificial gas, causes more trouble in the distribution system than all other factors combined.

In the process of manufacturing gas from crude oil, the high temperatures carried in the generators causes naphthalene to be formed from the vaporized oil. Many theories have been advanced as to its actual formation, but its presence in the gas is doubtless due to the synthesis of acetylene, ethylene and benzene—the products of cracked oil.

Naphthalene exists in three states: vapor, liquid or solid, dependent on temperature conditions; melts at 175 deg. F. and boils at 425 deg. F. It has the property of existing in any one or all three states at the same time, volatilizing even at ordinary temperatures. It is very stable, insoluble in water, but very soluble in gasoline, benzene and other light oils. The property which causes the greatest trouble in distribution is that of dropping directly from a vapor to a solid without passing through the intermediate liquid state.

When this bane of the gas man's existence gets into the distribution system, it travels along, mechanically suspended in minute particles or in solution in the benzene vapor of the gas. With any sudden change in temperature in the mains, services, or meters, the naphthalene is immediately deposited as a mass of flakes. These flakes grow. The service becomes choked and often shuts off the gas supply completely.

In order to reduce the number of "service complaints due to naphthalene," it is absolutely necessary to remove as much of this nuisance as possible from the gas before it leaves the works. This is accomplished by thoroughly scrubbing the gas with salt water, and, during more recent years, with crude oil.

On leaving the generator, the gas enters the wash-box at about 1600 deg. F., passing through the wash-box, primary and secondary water scrubbers,

the temperature drops to about 70 deg. F., at which temperature it enters the oil scrubber. The water in the wash-box and scrubbers causes the naphthalene to change from vapor to solid, and carries a large portion of the insoluble mass away with the lampblack and tar. In passing through the oil scrubbers, the remainder of the naphthalene in the gas, with the exception of one or two grains to the 100 cu. ft. is removed by the benzene and other light oils in the scrubber oil.

The quality of the oil used for scrubbing has a great deal to do with the amount of naphthalene removed. In the past six months, the oil company has been delivering a residuum oil which is "topped" until the light oil fraction is reduced to less than 3%. With this small quantity of light oils in the gas oil, it was found very difficult to scrub out the naphthalene. Recently a straight crude oil of 19 deg. Baume containing over 6% of light oils has been used for scrubbing purposes with very good results.

Oil scrubbing is an expensive process, for not only does it remove the interfering naphthalene but also a large percent of the constituents which give the gas its heating value. Below are three analyses of gas taken at the end of a run as it passed through the oil scrubbers:

		Inlet 1st Scrubber.	Outlet 1st Scrubber.	Outlet 2nd Scrubber.
Carbon Dioxide	CO <sub>2</sub>	3.2	3.0	3.6
Benzene	C <sub>6</sub> H <sub>6</sub>	1.6	1.1	1.1
Heavy Hydrocarbons	C <sub>n</sub> H <sub>n</sub>	3.2	3.1	3.1
Oxygen	O <sub>2</sub>	0.5	0.5	0.5
Carbon Monoxide	CO	11.5	11.0	10.8
Hydrogen	H <sub>2</sub>	48.9	49.9	46.8
Methane	CH <sub>4</sub>	30.4	29.2	29.2
Nitrogen	N <sub>2</sub>	0.7	2.2	4.9
B. T. U.		615	584	573

The benzene in this case has been reduced 31.3%; the methane, too, is slightly soluble in the light oils, and about 4% is removed in scrubbing. The

total loss due to the removal of these two components alone is 31 B. T. U.

In order to maintain a 550 B. T. U. average as the plant outlet, the average gas made in the generator must be around 600 B. T. U. From a manufacturing point of view, the ideal method would be to find a means of removing the naphthalene from the gas without reducing the heating value. Under the present operating conditions, this is impossible; in order to deliver the cleanest gas possible to the consumer, the naphthalene must be removed before the finished product reaches the distribution mains—no matter how great the cost.

Due to the fact that oil scrubbing was not used at the Potrero Station until 1917, and at the Metropolitan until the fall of 1919, both plants still contain more or less tar and naphthalene, confined principally in the relief holders where the gas picks up small amounts of naphthalene. These deposits are the accumulation of many years of service rendered by the relief holders in the storage of unpurified gas previous to the introduction of oil scrubbing. However, the naphthalene content of the gas leaving the plant is considerably below what the gas is capable of carrying at the average works outlet temperature.

During this period previous to oil scrubbing, naphthalene must have also found its way into the 800 or more miles of distribution mains and there deposited. When the gas, traveling through these mains, comes to one of these deposits, it is logical to expect that naph-

thalene is picked up to the point of its saturation capacity at that particular temperature, carried on to a point where the gas is cooled, and there is deposited. Eventually, most of the naphthalene in the system will find its way to the services and meters, and there, either pass through and be burned, or be deposited, clogging and finally stopping the gas supply.

The minimum of complaints has not yet been reached, but the following comparative figures for the five warm months of the year, from May to September (when the naphthalene gives the distribution department the most trouble), for the past five years, will readily show that progress is being made. These figures are based on the actual number of complaints handled by the distribution department:

May-Sept.	1916	1917	1918	1919	1920
Total Complaints	97,288	102,014	69,183	71,382	65,232
Maximum Day	1,438	1,454	927	859	673
Daily Average	636	667	452	467	426
Maximum Month	22,217	25,750	18,792	16,733	14,723
Monthly Average	19,458	20,403	13,837	14,276	13,016
Percent Decrease from 1917			31.2	30.2	36.1

The only solution to the naphthalene problem, as it stands now, is to scrub the gas thoroughly with crude oil. It seems too much to hope for immediate relief, but, while the greatest amount of naphthalene possible is removed from the gas at the works, the nuisance will be abated, and the distribution man's trouble will reach the minimum.





# Our Visit To The Gas Works

BY REBECCA F. BROWN.

*The following article is reprinted from the BULLETIN OF THE SAN FRANCISCO GRADE TEACHERS' ASSOCIATION. It tells of an incident that furnished a pleasant chapter in the every-day life of "Pacific Service." The writer's note of appreciation and understanding strikes a responsive chord in the heart of every member of our "Pacific Service" family who took part.—*

EDITOR PACIFIC SERVICE MAGAZINE.

O teachers, shall we ever forget that visit?

Can we ever forget that courtesy, that helpfulness, that spirit of brotherly kindness manifested toward us that evening? I feel that I have been privileged to associate with something very, very fine and am a better woman and teacher for it.

"Pacific Service" is the slogan of the Pacific Gas and Electric Company, and its true, practical meaning was certainly demonstrated to us on that visit.

When we met at our Club Rooms about 110 of us, there were automobiles for all and more. Mr. Britton had simply announced that the teachers wished to visit the gas works, and employees from every department offered their services to make the visit as pleasant and profitable as possible. The beautiful private machines of the officials as well as company cars were all offered.

And, teachers! Did you know that every driver was a volunteer—a man who had worked all day and then given his evening that we might be benefited? And that small army of men at the works who were so willing and so well able to answer all our questions, and to conduct us in small groups to the multitudinous points of interest—did you know that they, too, were volunteers who had already done a full day's work?

Such a spirit of willing service!

It reminds one of the Great Teacher's admonition: "Whosoever would be greatest among you, let him be the servant of all."

But did we learn how gas is made?

Indeed we did.

To be sure we don't feel prepared to start a gas factory. Even teachers can't learn so much as that in an hour and a half.

But we learned that the gas used in our kitchens is made from the residue of crude oil after the gasoline, kerosene, and other light oils have been removed. This

heavy, thick oil is first heated to a temperature of 200 deg. F., and is then sprayed with steam which breaks it up. Then it is run into the hot interior of a machine where the heat vaporizes it. Next it passes over hot fire bricks where it becomes fixed as a gas. In this state it is blackish, being mixed with lampblack, tar, naphthalene, etc., and is sent to the washboxes or scrubbers to be purified. Here it is washed—first through salt water, then through crude oil, and lastly through iron oxide and so practically all impurities are removed.

After this third purifying process it is run through big meters where it is measured and then sent to the storage tanks or holders. The transmission of gas is regulated by blowers and compressors which draw it out of the holders and send it on its way through the street pipes to our homes.

It was amazing to learn that the average daily consumption of gas in San Francisco is 20,000,000 cu. ft. and that the manufacture of this requires 3400 barrels of oil, 42 gallons to the barrel. It requires approximately 7 gallons of oil to manufacture 1000 cu. ft. of gas.

Everything was done on a stupendous scale, and yet a most prominent feature was the evidence of thrift everywhere. There was remarkable cleanliness in every nook and corner of the works, and just after those heavy rain storms, too. Then we found that absolutely nothing is wasted. The lampblack, tar and naphthalene that were washed out of the gas in the scrubbers we saw, all mixed together, being shovelled into the furnace to produce the steam used in making both gas and electricity.

Such thrift! Such efficiency! Such service!

It called to mind a remarkable fact about the Pacific Gas and Electric Company's bills during the past six years of soaring prices. While the cost of oil has

more than trebled and wages have practically doubled, yet our gas and electric bills have increased only about 20 per cent.

Now isn't that a record?

And shouldn't we be grateful?

From the gas works we crossed over to the electric plant where the electricity is generated by steam power. Its capacity is 83,700 horsepower. (One kilowatt equals about one and one-third horsepower.) This plant supplements the hydro-electric plants in the mountains so that no matter what accidents may occur in the Sierras by storm or otherwise, continuous service is assured in San Francisco by this steam generating plant which operates 24 hours a day. Service!

Think of it! Twenty-four hours of watchfulness, care, eternal vigilance!

And for what?

That you and I may have light any time we press the button; that we may have gas any time we turn a jet. Service!

Just one word more. The employees of the San Francisco Division of the Pacific Gas and Electric Company have adopted a new slogan for 1921 and I think I would like it for mine. What do you think?

"Confidence! Cheerfulness! Optimism!"

Of one thing I'm sure. If they live this slogan as they live their company slogan, they will bring a light into the world and it won't be the light of the sun, nor of the moon, nor of electricity, nor of gas. It will be the light of Heaven.

## *Electrical Co-Operative Campaign Exhibit.*

In a recent article upon "Industrial and Commercial Lighting" Mr. L. E. Voyer, Illuminating Engineer, Edison Lamp Works, pays complimentary reference to the industrial lighting demonstrations being held in San Francisco under the auspices of the California Electrical Co-operative Campaign. He writes:

"According to a survey of industrial plants made in fifteen Middlewestern and Eastern industrial States, reported in the transactions of the Illuminating Engineering Society, it was found that every socket in an industrial plant burned out on the average of one lamp per year. In other words, each kilowatt of lighting load connected in the average industrial plants consumes 1000 kilowatt hours per year.

"This survey also brought out the fact that only in a very few instances were factories well lighted. More than 50% had a standard of lighting much below that considered recommended practice two years ago. Since the so-called Chicago tests were made by the Commonwealth Edison Co. to ascertain the effect of lighting upon production the recommended standard of industrial lighting has been about doubled. The industrial lighting field, therefore, is merely scratched. Here lies a fertile field for new lighting business.

"The industrial lighting campaign being conducted throughout the country under the auspices of the N. E. L. A., and particularly the campaign now under way under the immediate guidance of the California Electrical Co-operative Campaign, is arousing industrial plant managers to a realization of the importance of a proper solution of their lighting problem. It is not now uncommon for business men to ask for a certain number of foot candles of illumination for certain purposes.

"Attendance at one or more lighting demonstrations at the 529 Market Street exhibit of the California Electrical Co-operative Campaign will enable any wideawake central station man to talk intelligently to customers on this important subject. 'Seeing is believing,' and at this exhibit one can see and experience the things that make lighting conditions good or bad."

EDITOR'S NOTE.—On June 3rd, 7:45 p.m., at 525 Market street, a practical demonstration on illumination will be staged which will in a short space of two hours' time deliver a lighting message to all. This being Pacific Gas and Electric Co. night, the matter of attendance of employees was placed in the hands of the Education Committee of the Pacific Service Employees' Association, who are extending an invitation to all to be present.

## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

The third out-of-town gathering of the present season was held under the auspices of San Jose Section at the Garden City, March 19th and 20th.

An excursion to San Jose is always welcomed by the men and women of "Pacific Service" and an additional attraction was provided this year in the outing being made coincident with the annual blossom festival in the Santa Clara valley, which attracts sightseers from all parts of the State. The early springtime, too, is one of joyful promise and there is a snap to the air which is not to be found in the heavier atmosphere of drowsy summertime. In other words, while early spring does not suggest hammocks and bathing beaches, it does appeal very strongly to the real nature-lover.

The weather was cool but fine, and San Jose being within easy reach of the two main centers of "Pacific Service" activities, namely, San Francisco and Oakland, the highway running down the peninsula was kept busy all that Saturday. Various groups of visitors gathered about headquarters upon arrival, but the real proceedings opened at the old Vendome hotel, whose management had set apart the grill for the opening entertainment. The name of the Hotel Vendome carries one back to the early days of Californian hospitality. It is one of the few historic resorts that are left to present to the visitor the spacious, high-ceiled rooms and wide balconies that were typical of the architecture of those days. The bankers' convention was in session at the time, so that the resources of the hotel were drawn upon to the limit, but that did not prevent the best of service being rendered to 374 "Pacific Service" guests who sat down to a most palatable feast.

During dinner a program of entertainment was rendered. It opened with a community song, "The Bear Went Over the Mountain," and then came a quartet of girls from the Normal school, who rendered several selections with pleasing effect. Then our own Mr. John Gilbert, past master in ragtime vocalism, came

to the front and enlivened us with some of the latest compositions that set our feet agoing in timely accompaniment. He was accompanied by Mrs. Gilbert. Clarence Oliver, our best beloved baritone, sang several songs gracefully, including a topical song written for the occasion. A character feature was the appearance of a quartet of members from San Jose Section made up as Rubes in what was termed "A Prunepickers' Quartet." It made a hit. This was followed by our own Safety Engineer, Mr. V. R. Hughes, in a screen display of moving pictures taken by him at the Pit river and elsewhere. The concluding number of the program was a Japanese dance by Miss Stoppleworth. Following the dinner a dance was enjoyed until 1 o'clock.

In addition to members of the "Pacific Service" family from the head office and all sectional points there were present some local guests, notably Mr. C. B. Goodwin, the successful city manager of San Jose, accompanied by Mrs. Goodwin.

The following day, Sunday, being fine, an auto trip was made to Los Gatos, Saratoga and other points where the blossom festival was in full swing. About 75 guests enjoyed this beautiful trip, leaving San Jose headquarters at 10 o'clock in the morning and returning early in the afternoon.

Altogether, San Jose held its reputation for pleasant entertainment, both indoor and outdoor.

F. S. M.

Saturday, March 26th, is a date which will long be remembered by those in San Joaquin Division who attended the Division party at Manteca on that night.

The affair was held in Odd Fellows Hall, and was attended by about 150 employees, mostly members of the Pacific Service Employees' Association, their families and friends, including representatives from Modesto, Stockton, Sonora, Tracy, Electra, Stanislaus and the furthestmost reaches of our large Division.

Dancing and card playing were the order of the evening and everybody

entered into the fun with much enthusiasm. During the course of the evening an Easter Bonnet (in reality a Mother Hubbard sun bonnet) was raffled off, with much merriment, the lucky lady being Mrs. Johnny Podesto of Manteca.

Another feature of the evening was the prize waltz, which occasioned not a little interest. The dancing was so excellent that the judges had much trouble to decide which really was the best, but after considerable parley the prize, a wicker basket of candy, was awarded with much applause to Mr. and Mrs. J. L. Brown of La Grange.

The efficient entertainment committee, headed by Mr. Jerry Herlihy, provided delicious ice cream and cake, as well as a heady punch with almost an aggressive kick.

Many new friendships were begun and many more old ones renewed, and altogether the Manteca party was a great success, as all "Pacific Service" parties invariably are, and as such will live long in the memories of us all as a most delightful occasion.

R.

Any kind of a diagnosis would prove our San Francisco Section of the P. S. E. A. absolutely sound and healthy. Its committee organization is composed of members that are "hand picked and snappy" and representing all departments of "Pacific Service." They are working hard, feeling that the membership can be relied upon to back them up at all times; that this is a fact was very clearly demonstrated by the splendidly attended theater party held at the Alcazar theater, March 29th. "The Gilded Cage," a merry comedy, faultlessly put on by the Alcazar Stock Company, was enjoyed to the utmost by the solidly filled house. An added feature to the program was the artistically rendered vocal solo and duet sung by Dick Hunt, Purchasing Department, and John Gilbert, Mr. Downing's Office, accompanied by Mrs. Ivy Gilbert. The selling ability of the folks in charge is attested by the very handsome surplus earned and added to the "Annual Event" fund of this Section.

Among those occupying boxes were Messrs. W. E. Creed, P. M. Downing, W. G. Vincent, C. P. Culten, Henry Bostwick, C. L. Barrett, R. J. Cantrell, J. A.

Johnson, S. J. Lisberger, Chas. Duke-shire, C. Vetter, C. Hervieu and J. H. Stott.

The preliminary arrangements for the Dansant and Whist Party to be held April 29th at Native Sons Hall are about completed and the night is awaited with keen interest by a large contingent of highly trained whist players as well as by the devotees of syncopated jazz.

The Educational Committee is about to announce an extension program. They are planning to use lectures, reels and slides, arranged and now completed by the Educational Committee of the parent body, as well as some ideas of their own which promise to be very interesting.

The San Francisco Section Relief Committee, through its chairman, Mr. Charles Suydam, is functioning promptly and efficiently and in no small way contributing to make our Association a real factor in our life.

Undoubtedly the most trying period in the life of a baseball team is the assembling, and at a meeting held Friday evening, April 15th, it appeared that this has been accomplished by the energetic work of Harry Hardage, of the Gas Distribution Department. His line-up has all the earmarks of a pennant-winner and all they ask is "an even break." The team is entered in the Industrial league, whose slogan is "sport for sport's sake," so some snappy baseball can be looked for at their Sunday games.

J. A. J.

The regular monthly meeting of the East Bay Section was held at the Home Club, Oakland, March 22nd. The Harbor View Club, composed of men from the gas department, acted as hosts on this occasion.

The program was exceptionally good and carried through in such a way that showed careful planning by Chairman Harry Wagner and his committee.

The Pacific Service Orchestra, under the leadership of Louis A. Melbourne, started the program. Then came fancy dancing by Baby Bernice De Pasquali, who is only five years old, truly a delightful spectacle. Josephine De Pasquali sang and her sister Betty played a piano solo. Mr. and Mrs. De Pasquali

do not have to want for entertainment with three such talented children in their home.

"Memories by One of the Boys" was well acted out by R. A. Doan, who was dressed in a costume of Revolutionary days and played several old time tunes on the harmonica.

Leon Mills has a beautiful tenor voice and it was at its best as he sang "Somewhere a Voice Is Calling" and, upon a hearty encore, "When Irish Eyes Are Smiling" and "Mother Machree."

Young Ellis Smith, son of Perry Smith of the Gas Meter Department, proved that he has a promising future on the cornet. Ellis was accompanied by Miss Elizabeth Whitton on the piano. The final and educational feature was an exhibition of the Pit River Development motion pictures.

Chairman W. W. Shuhaw thanked Harry Wagner, Walter Cohick and the other members of the Harbor View Club for the fine entertainment, and announced that the Electric Department would try its hand at entertaining in April. The floor was then cleared for dancing, but by this time the aroma of Perry Smith's coffee could be detected and everybody grew impatient to get some of those home-made cakes, baked by the wives of Harbor View Club members.

Thursday evening, March 24th, 75 employees of the East Bay Division met at the Iroquois Cafe to witness the presentation of the cups to the winning tug-of-war teams at the February "Frolie."

After a very tasty dinner, Mr. Lee Newbert, who acted as toastmaster, called on Mr. Leach to make the presentations. Mr. Leach first presented the President's cup to the girls' team of the Accounting Department. Miss Gibbs, captain of the team, accepted the cup in a well-worded speech. Mr. Leach then presented to Niell Munroe, captain of Electric Station "C" team, the F. A. Leach Jr. cup and told a little of the history of the one previously presented by him. He also explained that both the men's and girls' cups must be won twice to be permanent trophies.

Immediately challenges were in order and Van E. Britton, the boy orator of Station "B," requested that the next pull be held at the annual picnic instead of waiting a year for the next "Frolie."

This seemed to echo the sentiments of the girls' teams, so look for the fur to fly in July.

The diners were entertained with music by Van E. Britton and a few pieces by the Creole Jazz band.

No function of the East Bay Division would be complete without a few words from Bill Shuhaw, chairman of this section, so Bill rounded out a good evening's enjoyment with a short, snappy talk.  
J. L. H.

On April 2nd a scheduled meeting of Drum Division Section was held at Masonic Hall, Auburn. At this meeting a schedule of meetings for the balance of the year was decided upon as follows:

Alta Powerhouse and Lake Alta, May 22nd.

Drum Powerhouse, June 19th.

Spaulding and Bear Valley, July 17th. American River swimming trip, August, date open.

Nevada City, buck barbecue, Sept. 17th or 24th.

Bear River Canal, Oct. 16th.

Coloma, Marshall monument, etc., Nov. 6th.

Auburn, Dec. 10th.

In the evening an entertainment and dance was held, at which 80 persons were present. We were privileged to hear Miss Fuller of the Grass Valley office render several vocal selections, and certainly enjoyed the skit, "At the Dock," as presented by Miss Gladys Hough and Mr. George Smith, both of the Auburn office. Mr. Gebauer of Spaulding Powerhouse rendered several selections on the piano in his inimitable style, and Miss Hough of the Auburn office pleased us mightily with her vocal selections.

After the entertainment everyone danced, except the cook. Oh, yes, we had eats. The ladies of the Auburn office in conjunction with our wives, mothers and sweethearts furnished and served to us coffee, cake and sandwiches. I'll let you in on a secret—we have the world beat for cake bakers.

H. F. F.

With the advent of the spring season Colgate section has begun to look about for possible picnic grounds and pleasure spots for future meetings of the section. In the immediate vicinity of Marysville

there are scores of delightful nooks along the banks of the Feather River, and it is probable that one of the events of early summer in the social life of Marysville and Yuba City will be a barge party on the Feather given by Colgate section.

With such prospects and, in addition, a trip to Colusa to look forward to, the section's outlook is bright indeed.

Meetings of the section continue to reek with the pep and jazz which Colgate believes has made all its parties hitherto such successes. One of the chief attractions of meetings, and one upon which we cannot dwell too strongly, is the efficient work of the refreshment committee on such occasions.

At the March meeting, an elaborate program of musical and terpsichoreal events was presented, following which a real orchestra played for a real dance. Later in the evening the refreshment committee was called upon for a report and the response was highly gratifying in the form of sandwiches, cake and coffee. At the next meeting this menu will be supplemented with ice cream, it is promised.

"Come and Bring Your Friends" is the motto the section has adopted and at each meeting the attendance is larger.

Right here it might be opportune to state that any member of any section will be cordially received at any Colgate section meeting on the second Saturday evening of any month. G. J.

The regular meeting of the Shasta and West Side Divisions was held March 24th at K. of P. Hall in Red Bluff. This meeting had the largest attendance of any previously held. It can easily be said that there were 135 members with families and friends present, despite disagreeable weather prevailing.

The meeting was called to order about 8:45 p.m. The customary routine of matters was gone through and the outstanding result is that the next meeting is to be held in Redding, April 16th. After the enrichment of the reserve fund the meeting was closed at 10:25 p.m.

With jazzy music and plenty of refreshments available the evening was greatly enjoyed. B. F. G.

At the last regular monthly meeting of the Executive Committee Chairman Roy Crossman of the Membership Committee reported a total membership to date of 3,861. Truly a remarkable showing! In reporting details it was found that Shasta and West Side divisions combined had nosed out San Jose for third place in point of members and percentage; also that Drum division had deprived Sacramento of eighth place. The Head Office came tenth on the list.

Considerable rivalry has been started among the divisions on this membership question so that each report from now on is likely to contain changes in the order.

At this same meeting an excellent report was presented by Chairman Skinner of the Benefit and Loan Committee. It was gratifying to hear that San Francisco division had come to the front in showing extraordinary care and attention to sick employees, including assistance in hospital and nursing care, with welcome presents of flowers and fruit to the incapacitated employees.

The report from the Shasta and West Side divisions was also most encouraging.

At the time of writing considerable interest is being manifested in the projected trip to the Sierra Summit, Truckee side, under the auspices of Drum division section. Chairman Flynn and a corps of assistants are at work upon the arrangements. There is to be a special train from Sacramento on the evening of Saturday, April 23rd, which will land visitors at the Summit at day-break Sunday morning. Breakfast and lunch will be served at the hotel and between the two there will be a program of winter sports upon the snow-clad slopes overlooking Donner Lake. The return will be made in the afternoon in time to catch the last trains from Sacramento to San Francisco, Stockton and other central points.

## Pacific Service Magazine

PUBLISHED IN THE INTERESTS OF ALL EMPLOYEES OF  
THE PACIFIC GAS AND ELECTRIC COMPANY

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*The Pacific Gas and Electric Company desires  
to serve its patrons in the best possible manner.  
Any consumer not satisfied with his service  
will confer a favor upon the management by  
taking the matter up with the district office.*

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### EDITORIAL

A striking illustration of the point of almost destruction to which the public service in a large city can be brought through the persistent agitation of the professional corporation baiter in the guise of the people's friend is furnished at the present time by the city of Des Moines, Iowa, where the street car situation is serious indeed.

There is a fight on just now against an order made by Judge Martin J. Wade of the Federal District Court fixing the rate of carfare at 8 cents as against a rate fixed by franchise of 5 cents. The record shows that this order was entered as a result of an investigation of the street car situation by a board of special masters, three in number, appointed by the Court and all three men of unquestioned standing and integrity. This inquiry followed upon a succession of wage increases given to the street railway employees by boards of arbitration, the effect of which was to plunge the railroad company into insolvency. Its position, in fact, became so desperate that the company officials in demanding an increase of rate fare openly stated that all that was sought at the time was to permit the railroad to

earn sufficient money to pay interest on bonded indebtedness, without thought of surplus profit.

The details of the case are many and involved, but the main points upon which the issue rests are as stated. At the time the order of rate increase was made by the court the company was actually unable to pay the increased wages to its men, and as the matter now stands the men still have claims against the receiver for back pay amounting, in round numbers, to \$60,000.

Figuring in the limelight is a former corporation counsel who now poses as the persistent foe of invested capital and is carrying on the fight against the company in behalf of the city. This counsel's latest attack upon the company contained a charge that the railroad was actually losing money at 8 cents and concluded with the extraordinary contention that the company's best, in fact, only way to build up its business and secure the revenue necessary to avoid bankruptcy would be to reinstate the fare of 5 cents and improve the service. This contention was commented upon by the Justice of the Federal Court in these words:

"The absurdity of this is so apparent it is not worthy of discussion." The Court proceeded:

"Two-thirds of the difficulty in public utility matters arises out of a misunderstanding or lack of information upon essential fundamental conditions. There seems to be a determined effort in every city where these problems arise on the part of some individual, or individuals, to carry on propaganda which inspires doubt and suspicion, which destroys confidence in the officers of the law who have duties to perform in relation to such matters and convinces the people that they are being robbed in the interest of the corporations.

"The people will be fair if they only understand."

The last quoted sentence would appear to contain the meat of the whole controversy. "If the people only knew." That's just it. Publicists who have looked into the situation at Des Moines say that the company, apparently, has taken the position that its business lay with the city council and not with the people and, it having steadfastly adhered to that policy, the people have believed what they have been told by those eager to prejudice them.

All of which goes to prove what we have stated in these columns over and over again, namely, that the campaign of publicity and education is a never-ending one for the public utility if it is to establish relations of mutual understanding between itself and the public it serves. It is not enough, in these days, to know that you are right and act accordingly; it is a question of going before the people and, while claiming the right of your case, laying your cards upon the table and by the showing you make convincing the people that you are right. Then, and not till then, will they understand and, understanding, believe.

An important branch of our company's organization under the new order of things is the Employees' Welfare Committee, which meets monthly and discusses, as its title implies, matters of importance to the rank and file of "Pacific Service." Its personnel, too, is strikingly representative, for, under the chairmanship of the Vice-President in charge of Public Relations and Service, it includes the Company's President, First Vice-President and General Manager, Second Vice-President and Treasurer, Manager of the Claims Department, and three representatives of the Pacific Service Employees' Association, namely, the Chairman of the Association, the former Chairman immediately preceding him, and a member of the Association elected at large.

The problems that come up for consideration at these meetings take in a wide scope. They reach to the very heart of things with the distinct object of bettering conditions for the employee, making him feel that he is a member of a large family, as it were, and in point of personal consideration equal to any other member of that family.

To give instance of the matters discussed at the committee meetings we may take that held on April 4th. A new pension plan was presented containing some important amendments to the one in operation at the present time. The age for retirement of women employees, either voluntarily or by action of the company, was recommended to be fixed at 55 years instead of 65, as at present. The minimum pension of employees was recommended at \$25 per month in place of \$15, as at present, and it was sug-

gested that a maximum pension be fixed. It was also recommended that a pension once granted may not be afterward withdrawn or reduced. The rate of pension allowance was taken up and it was the opinion of the committee that the present rate of 1½ per cent of the average monthly pay for the last ten years of service provides a fair pension in most cases, but that for the low wage rates this percentage provides a pension rather small as compared with present living costs. The suggestion was made that a graded percentage be adopted, providing for a higher percentage allowance for employees receiving low wages and a smaller percentage allowance for employees receiving the higher salaries. These recommendations will be presented to the Executive Committee of the Company for final determination.

It was decided to establish a Personnel Department. Before the actual work of this department is commenced, however, a complete report of its proposed activities will be presented to the Employees' Welfare Committee for approval.

At this same meeting a rest-room for the women employees of Sacramento Division was approved at an approximate cost of \$700.

#### IN MEMORIAM

During the month that is past our Pacific Service Employees' Association suffered a severe loss in the death of Mr. Frank L. Mathieu, the well-known director of amateur theatricals, who succumbed to an attack of heart failure resulting from a long and troublesome illness.

While not a member of our "Pacific Service" family Mr. Mathieu was dear to one and all, for upon the inauguration of our Pacific Service Players' Club he was given charge of all stage performances under its auspices and was admired not only for his technical skill but, more than that, for his never-failing gentleness and patience through which he seemed to encourage those whose uncertain footsteps he guided along the pathway of dramatic interpretation.

Frank Mathieu will be missed wherever his name is known. May he rest in peace.



## *Tidings From Territorial Divisions*

### East Bay Division

Broadmoor, the east end of Oakland, is experiencing a building boom of English and California types of homes. One program covers fifty-one homes along East 14th street, involving an outlay of \$300,000. Much of the building is in old orchard land and trees are left standing where possible. The firm of Darling & Harding state that they are convinced that material prices will not fall much lower and that the low cost of the land offsets any possible high price. "Sunnyside," its name, is descriptive of its location.

Oakland is to have harmony. A harmonica factory is another industry coming to the city. E. G. Fisher has started a one-story brick factory building on East 10th street and Fortieth avenue. Harmonicas are still in large demand, both for children and for skilled players.

California marble is among the best in the world and that is why a new marble concern is coming to Oakland. It is the Central California Marble Works, makers of fine stairways, wainscoting, floors, counters, balustrades and other products in art marble. The head of the Company, T. J. Lastufka, states that the product of this State compares favorably with the finest of foreign countries, even the famous marbles of Italy. The plant will be located at Lowell and Stanford avenue.

Last year saw an overproduction in the fruit crop and with that high prices obtained. The canners have carried over a large stock, which will equalize a falling off in the crop this year. The apricot crop will be very small in this district due to blossom rot. This is a fungus that develops in the bloom. The Agriculture Department thought that it had checked this new disease, but the remedy did not seem to succeed this year.

Hayward is rapidly becoming a chicken center. New settlers are taking up holdings even up into the hillsides. Much of the ordinary land is selling from \$1000 to \$1500 per acre. The chicken hatcheries have not been able to meet the demand for baby chicks. The egg market is steady. The Poultry Association has done much to stabilize the price and assure the raisers ready returns. The many users of electricity in the chicken business has brought many applications to extend the electric pole lines into newly developed sections. The use of electric light in the chicken scratching pens has become a settled practice. The light is automatically thrown on in the dark hours of early morning of winter time. This calls out the hens to begin work and through longer working hours develop laying. Naturally the short hours of daylight in winter give hens less scratching time, which promotes sluggishness and less egg production in consequence.

Geo. Nelson has been transferred from San Leandro to the Walnut Creek Agency. The Walnut Creek section is developing very fast. The improved highways make it very accessible to Oakland and the bay cities. Mr. Nelson was district troubleman in his former position.

Mr. Barbour of the Berkeley Stove Company has shipped three Radiant-fires and one Hall Floor Furnace to Scotland. This is a unique distinction for far-off California. The first is a Michigan product, whereas the latter is strictly a California-made appliance. Thus gas-consuming devices are being sent back to the Old World where gas first was used.

The new 12,500-K.W. G.E. horizontal steam turbo-generator with its boilers and auxiliary equipment at Station "C" was put into service March 12th.

This machine operates at 1800 r.p.m.-11,000 volts and is automatically protected for trouble within the generator

itself. Direct connection is made from the generator in Station "C" to the aid switches connecting it to the 11,000-volt bus in Station "A," at which point the complete electrical control is centralized.

This complete installation, representing an investment of approximately one million dollars, fills a long-felt need and served as a further guarantee of the continuity of "Pacific Service" to the east bay cities. G. B. F.

#### AMERICANIZATION OF GAS PLANTS

Numbered among the loyal employees of Gas Station "B" are many natives of other lands. These aliens have been handicapped in their work by an insufficient knowledge not so much of the simple and common English words as of the peculiar vocabulary of the Gas Works. This handicap applies also to the superintendents and foremen who direct them, in that much time and effort is wasted in making themselves understood. There is also the danger of misunderstanding orders with the ever-present possibility of injury to the workman resulting therefrom.

The school department of the City of Oakland has for the past two years conducted night classes in the schools for the purpose of teaching aliens to read, write and speak English. A number of the employees of Gas Station "B" attended these classes with excellent results not only to themselves but to this company. Miss Swain and Miss Lamson, who conducted these classes, conceived the idea of holding them in the plants and factories themselves and using as lessons material prepared for them by the plant superintendent and foremen. The school department authorized this work provided that the factories or plants would co-operate and that there were enough scholars to make it worth a teacher's time.

The General Superintendent of Station "B" was called upon by Miss Swain and Miss Lamson and arrangements were made to hold classes every day except Saturday and Sunday from 3:30 p. m. to 4:30 p. m. The men who attend class regularly quit at 4:00 p. m., so by this arrangement the company furnishes them with one-half hour in which to attend school and they give one-half hour of their own time. A man must

have been regularly employed for one month before he is permitted to attend school and the only other provision is regularity in attendance.

These classes have now been in progress for six months with an average daily attendance of fifteen men. Many of them now speak English fluently and both read and write with increasing ease. Our Safety bulletins are used as text books and the primary lessons are demonstrations in accident prevention. The several foremen, especially Messrs. Homann and Siebecke, have been extremely helpful to the teachers in giving information regarding the work of the pupils. Messrs. Britton, Beck, Tyler and Makins have prepared the more advanced work dealing with plant work in general and rules and regulations regarding time, pay checks, stock sales, alien certificates, etc.

The school is held in the station meter-house and the tables and benches supplied by the Gas House Terriers' Club. The school department furnishes the blackboards. Steam heat has recently been added, which makes for comfort in this unique classroom.

This class is one of two factory classes in Oakland and has attracted much interest in educational circles. Several out-of-town visitors have attended to observe the work and its progress.

The morale of the scholars is much improved. There is a decided increase in minor accidents among them, and, best of all, a more intense interest in the welfare of the plant and an understanding and appreciation of its aims and hopes and ambitions.

We are indeed indebted to those splendid young ladies whose patience and effort are making first-class Americans and loyal employees out of natives of other lands for our mutual benefit. Station "B" believes in the Americanization School.

#### Sacramento Division

"Sacramento, greenest village of the plain." That statement is absolutely correct. Sacramento has taken upon her shoulders that wonderful covering of verdure with which her beautiful trees and grasses combine to make her one of the most beautiful cities in the United States. Also it places the finishing touch upon her Capitol grounds

which are acknowledged by the most exacting critics as the last word.

But, of course, there is always the "fly in the ointment." This time the fly is two of the best blocks in the city of Sacramento, denuded of all building and through the generosity of Sacramento presented to the State of California for an extension of the Capitol grounds toward the west. Why our lawmakers fail to appreciate what the completion of these grounds will mean to our State seems a mystery. If they could hear the words of praise and wonder that our visitors bestow when first they gaze upon these wonderful gardens!

There is, however, a rift in the clouds and we feel that something will be done.

The building boom is still with us and many residences of a very classy nature are being erected in all parts of the town. There are many new commercial structures on the way also. The only thing now holding back at all is the necessary financial backing of the banks.

Parenthetically let me remark, did you ever realize what a dry spell we would have if it did not rain? Well, there ain't no such animile in this section! From careful authentic investigation we find that the so-called "dry condition" is a misnomer in every sense of the word. And it is settled beyond the peradventure of a doubt that the camel is the emblem of the anti-drys because he has four hips!!

This outburst has all been caused from the fact that we are getting all the rain that any and everybody asked for last year and then some. There will be no requests made this summer to prospective power users "to have a heart." We will be able to give them all they want and just a bucket or two over.

The first results of this supply will be shown in the new extension being made in Riverbank, one of our suburban cities on the west side of the Sacramento in Yolo county. We are preparing to serve about fifty residences there which have never been supplied with electric lights before. It also includes quite a number of small power plants for irrigation.

There is also rumor of quite an extensive installation along the Sacramento Northern toward Marysville. Of that more later on.

We have news from Dixon that our genial manager of Solano district, Mr. Charles Sedgwick, has been re-elected a high school trustee in his residence town. There were three candidates in the field and two to be elected and although Mr. Sedgwick did not lead the ticket he polled a handsome majority over the third candidate, Mr. T. A. Kilkenney, a prominent farmer. The other candidate re-elected was Dr. Hall.

In writing the news of his success Mr. Sedgwick states: "I didn't know I had so many friends. I feel quite gratified."

THE CAPTAIN.

### North Bay Division

The Petaluma and Santa Rosa Railroad Company is installing a 300-h.p. motor generator set automatic in its operation. It is situated at the top of the grade out of Petaluma at Stony Point, and is to be used in assisting heavy freight trains over the hill. This company has built a mile and a half 60-K.V. line consisting of 50-foot poles and No. 4 stranded copper conductor from Cotati to supply this new substation which is almost human in its operation.

It is rumored that a searchlight of huge proportions is to be installed at the top of Mt. Tamalpais to be used in the advertising campaign now in progress in Northern California. It is said the light will consume approximately 20 K. W.

The town of Mill Valley has recently installed a system of electroliers, of 500-watt capacity each, in its business section. The initial illumination on Saturday, February 19th, was celebrated with a street carnival and dance.

The North Bay division is not only supplying energy for use on reclamation projects in the marshes, for lighting on mountain tops and on the islands of the bay but also for use on board ships. "Pacific Service" is now supplying 28 vessels of the U.S. Shipping Board which are being stored in Southampton bay at Benicia, with lighting service; our lines being so arranged by attaching wires to the bows that any of the steamers may detach itself from our system without interrupting service to

the remaining vessels. Service to the ships is over a 11,000-volt line built over the water, the poles being attached to dolphins and terminating at a point close to the mother ship of the fleet. Service to the vessels is at voltages of 110 and 220.

Napa district is installing a new 100-h. p. horizontal return tubular boiler to replace one of smaller capacity, making a total capacity at the Napa Gas Works of 175 h. p. This additional capacity assures continuous service and affords greater flexibility of operation.

HERBERT KNOPF.

### San Joaquin Division

Upon picking up the morning paper recently the unsuspecting eyes of Mr. Charlie Northcutt, our division manager, rested upon the following outburst:

#### "THE VELVET HAMMER

"CHAS. S. NORTH CUTT

"He turns the mountain snowdrifts into light and power and fire; He sends the juice to meet you at the junction on the wire. He cranks the old victrola, coffee mill and printing press: he rocks Modesto's baby, heats its milk and irons its dress. He curls the hair of Susan, saws a boilerplate in two, or does a lot of other things such gifted men can do.

"For Northcutt is the manager of our electric plant and his supply of intellect is neither poor nor scant. Not only can he sell the jazz which whizzes through the wire, but he can make Pacific stocks the stuff that we desire, can get our names on dotted lines for large and long amounts and make a temporary dent in blooming bank accounts.

"But while he boosts the company with language swift and swell, he also finds a lot of time to boost the town as well. He helps direct the Commerce Chamber's fine and fancy stunts, for work is a commodity he hankers for and hunts. He's still a frisky youngster in his fresh and active prime, who finds it takes a lot of work to occupy his time."

Now what do you think of that? I may remark in passing that "The Velvet Hammer" is a regular feature of the Modesto Morning Herald, Modesto's wide-awake morning daily, and each day one or another of the great and near great

of Modesto business and professional circles finds himself the victim of its deadly(?) assaults.

A new Dodge service car which makes all our hearts swell with the pride of ownership is the newest addition to the auto roll of the Division. Just ask Pink Johnson if it doesn't. He drives it.

Among the latest additions to Modesto's industrial district is the new Modesto Creamery now in course of construction. The initial unit will require 100 electrical horsepower.

The ever-increasing volume of milk marketed in Modesto (now exceeding 150,000,000 pounds annually) renders necessary further facilities for handling the product.

Contracts will soon be let for the construction of the \$4,000,000 Don Pedro Dam on the Tuolumne River for the impounding of 285,000 acre feet of water, being a portion of the "mile feet" which now runs to waste during the flood season. This will insure a longer season of irrigation than is now possible with the present foothill storage reservoirs.

With the completion of the West Side irrigation project, Stanislaus County will boast of nearly half a million irrigated acres, and should enter upon an era of record-breaking production.

Turlock, the city of melons and succulent sweet potatoes, was ten years ago the center of a desert waste; population now, 5,000.

On March 3rd, 4th and 5th, Turlock held its annual "Spring Showing," and during the festivities of the evening of March 4th the power was off two minutes. Honest, it seemed like an hour. Thanks, Al, for closing "B" switch.

The Railroad Commission held a meeting in Turlock on March 9th under the auspices of the Farm Bureau to take up the matter of rates and service in this locality, but due to the fact that none of our population appeared at said meeting, it was declared adjourned. Three cheers for "Pacific Service!"

We are all going to move again! This time it's to the new Tillson building, 921-923 Eleventh street, Modesto, and

we'll all be together again. But more about this next month.

Truly the spring moving fever has struck this Division! Within the course of a week or so, the Turlock office force will be transferred from its present quarters to larger and more spacious ones in the building recently completed by Mr. Fred A. Geer at 138 S. Center St., Turlock.

LILLIANDA.

### Shasta and West Side Divisions

During the early part of March the Company had considerable trouble in getting freight through from Bartle, the eastern terminus of the McCloud River railroad, to the powerhouse sites on Hat Creek. Two thousand tons of freight lay at Bartle at one time.

Just then pieces of pipe nine feet in diameter and 36 feet long were being hauled. Each joint weighs 15 tons. The forward end of the pipe is loaded on a bob-sled, the rear end resting on timber runners that are shod. It takes 12 horses to haul one piece of pipe through the snow in Dead Horse canyon. While a stop is made to rest the horses, the heavy load settles into the snow so that the team cannot start up. Jackscrews are used to budge or loosen the load so the horses can go on with it.

The heavy joints of pipe are hauled to the edge of the snow line in Cayton Valley and are there unloaded from the bob sled arrangement on to and hauled the remainder of the way on wagon trucks. There were 90 such pieces of pipe to be hauled.

On April 11th two large automobile trucks loaded with provisions amounting to about six tons left Redding for the Company's Hat Creek camps.

These were the first trucks to make the trip over Burney mountain to their destination on the other side in one day. The winter supply of provisions was running short as no freight could be received from Bartle.

Walter Neilsen, who for the past six months has been acting as temporary load dispatcher at the Redding office, has been given a position as operator of the 20-K. V. units at Volta Power House. Yes! Hello, Walter, you say you are

governing? Alright, we'll fix you up. 179, please. Hello, Charlie. Please go down to the switchyard and give Walter a shot in the neck. He says he is out of parallel. Gosh! Walter, we miss you, but wish you well in your new position.

Harold G. Simpson, formerly a dispatcher of the Redding office, is again back with us. During his absence he was in charge of the Gridley Municipal lighting system. Welcome back, Harold!

### FOR INSTANCE

Give all that you can give and a little bit more, in the way of time and service, for it will not do any harm.

Save all that you can save and a little bit more as needed economy.

For, your employer's success is your success.

BEN W. GLASER.

### Drum Division

A large amount of curiosity was exhibited by residents of Placer County around the vicinity of Auburn recently when a car without license plates passed through the town and on down the American River canyon road loaded with a large copper coil that had all the earmarks of a "still," or whatever they call those things that "moonshiners" use to make "hootch."

In consequence, Al Dixon, "Pacific Service" line foreman, had to do quite a bit of explaining.

We can explain it this way: The truck had been furnished with a new license plate, but on checking the engine number it did not have the license so the number was transferred to the right car, and before the garage man could get the right number on the car, Dixon had taken it out, not knowing that the numbers were missing. He loaded on a copper transformer coil which was intended for the Mountain Quarries sub-station, located about three miles from Auburn near the bottom of the American River canyon.

But all this was not explained to the county officers and residents, so there are quite a few who are very anxious for information.

W. J. C.

### Colgate Division

Fully 6,000 persons, including acrobats from all portions of the West,

swarmed over Friesly Field, near Gridley, recently when the giant Friesly Falcon airplane was formally launched for service as a passenger-carrying plane between San Francisco and Portland.

The Falcon was constructed at the Friesleben Farm, north of Marysville, and was designed and built under the direction of Capt. B. M. Spencer, veteran flyer and former American Ace. The Friesly Aircraft Corporation, which financed the construction of the plane, has already begun erection of a large factory near Gridley for the building of Falcons which will be placed in passenger service in other portions of the country.

The Falcon is designed to accommodate twelve passengers and embodies many novel features which have won for the model the praise of aircraft authorities.

One of the initial tests of the new anti-alien land laws is being fought out in the superior court of Yuba County, with Attorney General U. S. Webb assisting District Attorney Arthur Coats, of Sutter County, in the prosecution of two Japanese who, it is alleged, attempting to evade the land laws by purchasing property in Sutter County in the name of minor children for whom the Japanese were posing as guardians. The Attorney General declares that under the new laws the land will escheat to the State.

American landowners in the vicinity of the tract purchased by the Japanese were the original complainants in the matter.

An ex-service man for every farm in the Sacramento Valley is the goal toward which the Federal Board of Vocational Education is working, according to plans divulged in Yuba City recently when a representative of the board opened negotiations with Farm Bureau officials to place on Sutter County farms ex-service men who are at present studying at the University Farm under scholarships awarded by the government.

What Hollywood is to Southern California Oroville will become to the northern portion of the State. At least, that is the hope of loyal Butte County residents who are pointing with pride to the new home of the Producers' Film Company,

which has established headquarters at Oroville and has a corps of literary lights at work on scenarios which will be filmed in the Feather River Canyon, the Marysville Buttes and other picturesque spots in Butte, Yuba and Sutter Counties.

Directors of the picture company are at work on a film in which will appear school children of Marysville, Oroville, Colusa and other Colgate Division cities. Miss Charlotte Gluckman, attractive Marysville girl, has been selected to play the leading juvenile role.

In appreciation of the splendid minstrel show which was presented by Colgate "Pacific Service" employees for the Marysville Rotary Club in Sacramento last winter, the Rotarians invited members of the show cast to be their guests recently at a banquet and entertainment given when the Sacramento Rotary Club paid a visit to the Marysville body.

The Shell Oil Company has established a large filling station at Colusa, giving that city branches of four oil companies at the present time.

FARWELL BROWN.

The following verse is contributed by Miss Josephine Hibbert of Brown's Valley, an enthusiastic reader of PACIFIC SERVICE MAGAZINE and, as evidenced by her screed, an equally enthusiastic nature-lover:

#### A CALIFORNIA WILD ROSE

A wild rose in the mountains grew,  
Its bed the turf 'neath tall pine trees,  
Pine-needles gray a carpet made,  
Its red bud swayed with every breeze.

In checkered shade its sweetness flourished,

It grew, it had no fear;  
Green cedars low its beauty nourished,  
And ferns and mosses near.

#### San Francisco Division

##### GAS DISTRIBUTION DEPARTMENT

A room has been set aside in our meter repair shop for educational purposes. We have meter installations in place, showing the service rise, distributor, meter connections and house lines. Also, there is a series of skeleton meters tied in with an air line, showing the

path of the gas in its journey through the meter. Instructions are given as to proper method in connecting up a meter, the handling of meters and the pumping of services and house lines.

Our Pacific Service Employees Association baseball team, captained by Harry Hardege, won the first start of the season on April 10th at Balboa Park.

The team is scheduled to play in the Industrial League and, on form, the present lineup should give a good account of itself.

R. D. Shea, who is collecting data on the gas properties for the Valuation Department, dropped in to say "Hello." San Jose is his next destination, where a physical inventory of all gas mains and services will be taken.

We hope his stay will not be an extended one, as it is rumored he is contemplating matrimony in the very near future. We will take this for granted, as the "I DO" expression was very noticeable on Mr. Shea's countenance.

E. G. C.

#### GAS GENERATING DEPARTMENT

Potrero Station has the first coal oil driven tractor, with rubber tired steel wheels, ever delivered on the Pacific Coast. It is used for general purposes around the plant and will pull anything which is loose on one end. Jack Kraut is official chauffeur and is very proud of his new machine.

Dan McCarthy and Jack Johnson attended the San Jose meeting of the Association, as Potrero representatives. They reached home safely, some time before daylight Sunday morning.

Charley Hansen, the relief operator at Metropolitan, is anticipating a vacation this summer which will be a real outing. With friends of his he will take the overland trip by automobile from San Francisco to Montana and return.

The joint B. T. U. Committee of the Railroad Commission visited Potrero Station the other day and inspected every corner of the plant. The members, from all over the State, are practical gas men, so you may know this was no mere visit but a thorough inspection,

with all representatives of our Gas Department "on their toes" answering very searching questions. Mr. Herrot, general superintendent, of San Diego, remained a few days in order to become familiar with operating methods in the North.

J. M. DICKEY.

#### BOOKKEEPING DEPARTMENT

Miss Edythe Leavy has completed a six months' leave of absence spent in New Zealand and is back again with her cheery presence. It will be remembered that Miss Leavy's departure was somewhat delayed through passport diticulties.

Scott Stewart, who enjoys the distinction of being the only pinch-hitter in baseball circles to be summoned by telephone when the necessary bingle is needed, has challenged "President" C. B. Wilson to a race to the Park Stadium and back. Wilson, in accepting, says that Scott is none other than the pioneer for whom Steuart Street was named, with a slight disguise in the spelling, and offers to allow him the use of a wheelchair during the proposed race.

Miss Annette Joue and George E. Browning, both formerly of the Records Department, were married in Berkeley on March 29th. Miss Agnes Sweeney of the Bookkeeping Department and Harry Lemos of the Records Department were the only attendants. After a short honeymoon the couple will reside in Eureka, where the groom is established in business.

Reg Wilson, formerly of the Bookkeeping Department, paid us a flying visit from Los Angeles last month. He is associated with a law firm in the southern city while completing the study of his profession at the University of Southern California.

F. E. O.

We regret to report the passing of Mrs. Lulu Janisen, who was an employee of the San Francisco Addressograph Department for the past two years, at Mary's Help Hospital on February 28th. Mrs. Janisen was ill but one week. "Pacific Service" extends its sympathy to her family.

C. E. M.

## Complimentary to "Pacific Service"

In view of the criticism to which not only our company but every other public utility in the land is subjected from time to time, it is refreshing to strike here and there a note of appreciation of our humble efforts in the direction of service.

At a time like this, when current events are calling particular attention to the public utilities of California, we may be pardoned for laying before our readers a few of those notes of appreciation which, to quote a valued member of our "Pacific Service" family, "can and should spur us on to great effort."

During the past winter months San Francisco Division received a number of complimentary communications. The following, for instance, is from The Stewart Products Corporation, 883-887 Bryant street, San Francisco:

San Francisco, Calif.,  
January 28, 1921.

Mr. H. Bostwick, Division Manager,  
San Francisco, Calif.

Dear Mr. Bostwick:

In these days of hustle and bustle and trying times many complaints come to our ears about the inefficiency of our employees and I sometimes think that in a big organization who serves the public as your company does, there are many complaints filed against employees because of these conditions.

It is for this reason that I take this opportunity of writing to you personally expressing my kind regards for the Gas Company as a whole because of the prompt attention given to my requests as well as courteous replies and treatment I received at the hands of your Mr. Talcott and Mr. Godfrey. Some time in November we planned to open a factory under the above name and at the address stated, at which time we gave an order for the first twenty-five horsepower gas fired boilers in the State of California to your Mr. Godfrey. It was only to be expected that we were very anxious to receive the boiler and have it installed at the earliest possible moment as it was our plan to commence operation January 1st of this year.

We have had many hold-backs on machinery, promises of all kinds and

poor deliveries, but in the case of the Gas Company I must say that we are very much obligated to these two gentlemen in question because of the service and prompt attention that was given our work; and I, therefore, feel it is but proper and timely for me to write you a few lines calling your attention to this fact.

With kind regards, we are,

Yours very truly,

THE STEWART PRODUCTS CORPORATION,

(Signed) A. DONALD STEWART.

The Otis Elevator Company, 2300 Stockton street, is responsible for the following:

San Francisco, Calif.

January 13, 1921.

Pacific Gas and Electric Company,

San Francisco, California.

Gentlemen:

We wish to express our great appreciation of the splendid manner in which your organization met our emergency needs for electric service occasioned by the destruction of our San Francisco plant by fire last Thursday morning.

Your entire organization responded in a most remarkable manner and rendered us service of inestimable value.

With sincere appreciation,

Yours very truly,

OTIS ELEVATOR COMPANY,

(Signed) R. W. CHARLES,

Pacific Coast Manager.

A pleased property owner in the Western Addition writes as follows:

My dear Mr. Britton:

I have just about completed the doing over of two old houses into ten studios, and have had many trials, but feel I must write and tell you how perfectly wonderful the service from your company has been. I can truthfully say that your people are the only ones with whom I had no difficulty. They were always ready and always kept their promises—no disappointments; in fact, they seemed to get out here in time, whenever I needed them. You know the disappointments of building well. I had none with you, and they did me many little favors for the asking. Mr. Talcott and Mr.



Suydam have been particularly nice, and every one of your workmen were so courteous always.

Many thanks.

(Signed) LOUISE MAHONY.

Over in North Bay Division a pleased consumer communicates with us from picturesque San Geronimo in the mountain region some ten miles west of San Rafael:

January 29, 1921.

Pacific Gas and Electric Co.,

San Francisco, California.

Gentlemen:

I wish to call your attention to "efficient service" as given out of San Rafael. Last night at 6:30 p. m. I informed "works" in San Rafael, that I had no lights or power. It was a wild stormy night. At 7:15 p. m. a car drove in, made a few inquiries and were off. At 9 p. m. lights were turned on. At 9:10 a car drove to the side of the house, backed around and were off before I could get to the door. They saw that the lights were on. Even stopped to close the front gate.

Considering that I am 8 miles out of town over White's Hill, also that the night was dark and stormy, I think that it is not out of place to inform you that good work is being done, and I was very much pleased with the results.

Yours truly,

(Signed) FRED W. DICKSON.

Still another tribute from the Mount Tamalpais region:

Ross, March 4, 1921.

My dear Mr. Ridgway:

I am at a loss how to say, I thank you! In fact, I'm like a fish, I'm gasping! You received my letter only this morning and here it is just 4 p. m. and the pilot is in! adjusted! delighted! Well, sir, I should say so and I render you my hearty thanks, my astonished thanks! Such service!!! Hurrah and long life to such a manager. You have my vote forever.

Gratefully yours,

(Signed) HELEN P. FIELD.

(Mrs. H. B. Field.)

P. S.—I not alone thank you for prompt attention but I thank you for the efficient and obliging workman, Mr. Watson, I think is the name. I feel it is only fair, Mr. Ridgway, to give credit where credit

is due. He adjusted the burners, tightened up the leaks and was efficiency itself.

Again my hearty thanks!

H. P. F.

In the same division the following was received from a consumer at San Rafael:

San Rafael, Jan. 18, 1921.

Pacific Gas and Electric Co.,

Gentlemen:

Permit me to thank you for the prompt service accorded my complaint regarding our electric wires. Everything has been satisfactorily attended to.

Heartily commending your expeditious and efficient work, I am,

Respectfully yours,

(Signed) ROSE SOMMER.

From East Bay Division the following seems worthy of reproduction:

January 29, 1921.

Manager,  
Pacific Gas and Electric Co.,  
Alameda, Calif.

Dear Sir:

Please accept my appreciation and thanks for your prompt action on my complaint and also for the courtesy and assistance rendered by your representative who came to adjust the meter and stove burners.

The spirit of "Pacific Service" was pleasantly demonstrated.

(Signed) Mrs. R. F. SNOWDEN,

1414 Fountain St., Alameda.

Sacramento Division, also, comes in for complimentary notice as witness the following from an editorial writer on the Sacramento "Bee":

712 30th street, Sacramento,

January 28, 1921.

Pacific Gas and Electric Co.,

Gentlemen:

Recently we sent in a complaint about the gas pressure at the above address. We find it quite satisfactory now and I am writing to thank you for the prompt service we received and to commend the courtesy and conscientiousness of your workmen.

Yours very truly,

(Signed) M. J. LLOYD.

Suitable acknowledgements were sent to the writers of all the foregoing. May there be many more to be so suitably acknowledged.

## *Eclipse* The Ventilated Oven Gas Range

THE Results of your cooking  
will equal those obtained  
by expert chefs.

C. B. BABCOCK CO.  
Managers

*Pacific Coast Branch*  
GEO. D. ROPER CORPORATION  
ECLIPSE GAS STOVE DIVISION  
San Francisco  
Seattle                      Los Angeles



No. 477 L. E.



## American National Bank of San Francisco

*Invites you to use its fully  
equipped banking service*

A Willing, generous service, cheerful in spirit—helpful  
by strength and conservative when necessary to  
maintain that strength.

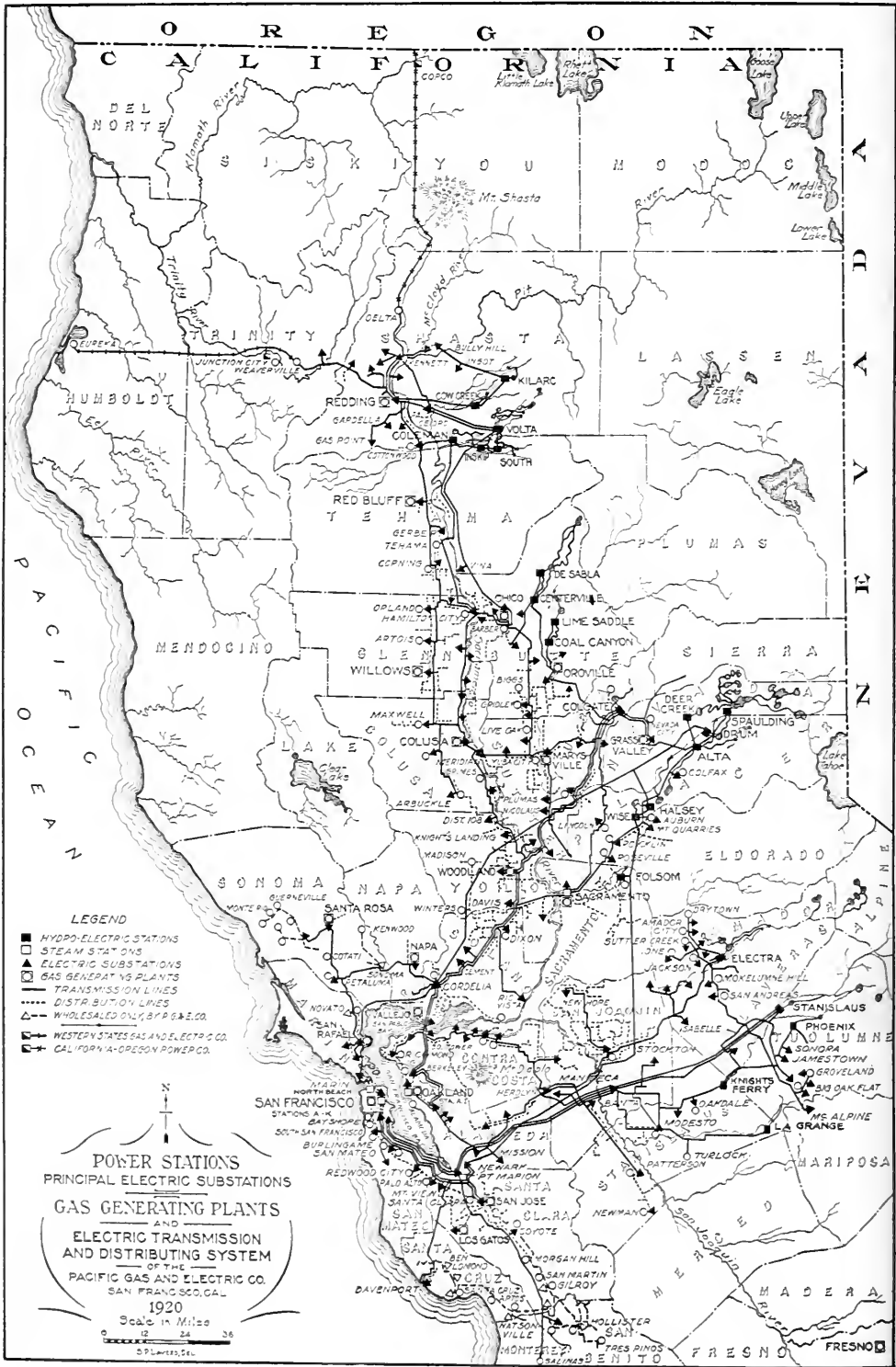
It Is our purpose to render a service that will demon-  
strate our sincere interest in the financial welfare of  
our customers and other friends.

*Four Per Cent interest allowed in  
TIME DEPOSIT DEPARTMENT*

Safe Deposit Department open on business days  
from 8 a. m. to 6 p. m.

Corner

California and Montgomery Sts.



## Pacific Gas and Electric Company Furnishes

**"PACIFIC SERVICE"**

TO OVER 571,000 CONSUMERS OF

**GAS • ELECTRICITY • WATER • STREET RAILWAY**Serving 1,909,285 Total Population, in Thirty-six of California's Counties  
CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
<sup>1</sup> Alameda.....	30,000	<sup>2</sup> El Verano.....	400	<sup>1</sup> Milpitas.....	350	<sup>2</sup> San Pablo.....	500
<sup>1</sup> Albany.....	2,300	<sup>2</sup> Emeryville.....	3,000	<sup>1</sup> Mission San Jose.....	500	<sup>2</sup> San Quentin.....	2,500
<sup>1</sup> Alvarado.....	700	<sup>2</sup> Escalon.....	500	<sup>1</sup> Modesto.....	14,000	<sup>2</sup> San Rafael.....	6,000
<sup>1</sup> Alviso.....	350	<sup>2</sup> Esparto.....	250	<sup>1</sup> Mokelumne Hill.....	300	<sup>2</sup> Santa Clara.....	6,000
<sup>1</sup> Amador City.....	1,100	<sup>2</sup> Fairfax.....	250	<sup>1</sup> Monterey.....	6,500	<sup>2</sup> Santa Cruz.....	13,600
<sup>1</sup> Anderson.....	800	<sup>2</sup> Fairfield.....	1,000	<sup>1</sup> Morgan Hill.....	750	<sup>2</sup> Santa Rosa.....	11,000
<sup>1</sup> Angel Island.....	280	<sup>2</sup> Fair Oaks.....	300	<sup>1</sup> Mountain View.....	2,500	<sup>2</sup> Saratoga.....	300
<sup>1</sup> Antioch.....	2,000	<sup>2</sup> Fall River Mills.....	500	<sup>1</sup> Mt. Eden.....	210	<sup>2</sup> Sausalito.....	3,000
<sup>1</sup> Aptos.....	300	<sup>2</sup> Farmington.....	400	<sup>1</sup> Napa.....	6,500	<sup>2</sup> Sebastopol.....	1,950
<sup>1</sup> Arbuckle.....	700	<sup>2</sup> Felton.....	500	<sup>1</sup> Nevada City.....	2,900	<sup>2</sup> Shasta.....	500
<sup>1</sup> Artherton.....	250	<sup>2</sup> Folsom.....	2,000	<sup>1</sup> Newark.....	505	<sup>2</sup> Shellville.....	200
<sup>1</sup> Auburn.....	2,800	<sup>2</sup> Forestville.....	225	<sup>1</sup> Newcastle.....	950	<sup>2</sup> Sheridan.....	250
<sup>1</sup> Barber.....	500	<sup>2</sup> Fresno.....	48,867	<sup>1</sup> Newman.....	1,200	<sup>2</sup> Smartsville.....	300
<sup>1</sup> Belmont.....	375	<sup>2</sup> Gilroy.....	2,900	<sup>1</sup> Niles.....	1,000	<sup>2</sup> Soledad.....	600
<sup>1</sup> Belvedere.....	550	<sup>2</sup> Glen Ellen.....	900	<sup>1</sup> Novato.....	400	<sup>2</sup> Sonoma.....	1,200
<sup>1</sup> Benicia.....	2,400	<sup>2</sup> Gonzales.....	650	<sup>1</sup> Oakdale.....	2,100	<sup>2</sup> Sonoma.....	1,200
<sup>1</sup> Ben Lomond.....	800	<sup>2</sup> Grass Valley.....	5,200	<sup>1</sup> Oakland.....	225,000	<sup>2</sup> Sonoma.....	3,000
<sup>1</sup> Berkeley.....	65,000	<sup>2</sup> Gridley.....	1,800	<sup>1</sup> Oakley.....	200	<sup>2</sup> South San Francisco.....	3,750
<sup>1</sup> Biggs.....	500	<sup>2</sup> Grimes.....	350	<sup>1</sup> Occidental.....	600	<sup>2</sup> Standard.....	300
<sup>1</sup> Bolinas.....	200	<sup>2</sup> Groveland.....	250	<sup>1</sup> Orland.....	836	<sup>2</sup> Stanford University.....	2,600
<sup>1</sup> Brentwood.....	500	<sup>2</sup> Guerneville.....	780	<sup>1</sup> Oroville.....	5,000	<sup>2</sup> Stockton.....	42,000
<sup>1</sup> Broderick.....	600	<sup>2</sup> Hamilton City.....	200	<sup>1</sup> Pacheco.....	250	<sup>2</sup> Suisun.....	800
<sup>1</sup> Burlingame.....	4,000	<sup>2</sup> Hammononton.....	500	<sup>1</sup> Pacific Grove.....	2,900	<sup>2</sup> Sunol.....	340
<sup>1</sup> Byron.....	450	<sup>2</sup> Hayward.....	4,000	<sup>1</sup> Palo Alto.....	6,000	<sup>2</sup> Sunnyvale.....	1,650
<sup>1</sup> Campbell.....	700	<sup>2</sup> Hillsborough.....	950	<sup>1</sup> Paradise.....	500	<sup>2</sup> Sutter City.....	250
<sup>1</sup> Capitola.....	275	<sup>2</sup> Hollister.....	2,500	<sup>1</sup> Patterson.....	500	<sup>2</sup> Sutter Creek.....	1,300
<sup>1</sup> Carmel.....	600	<sup>2</sup> Jone.....	1,000	<sup>1</sup> Penryn.....	250	<sup>2</sup> Tehama City.....	221
<sup>1</sup> Cement.....	1,000	<sup>2</sup> Irvine.....	800	<sup>1</sup> Perkins.....	250	<sup>2</sup> Tiburon.....	350
<sup>1</sup> Centerville.....	850	<sup>2</sup> Jackson.....	2,100	<sup>1</sup> Petaluma.....	7,500	<sup>2</sup> Tracy.....	2,000
<sup>1</sup> Ceres.....	250	<sup>2</sup> Jamestown.....	600	<sup>1</sup> Piedmont.....	3,500	<sup>2</sup> Tres Pinos.....	300
<sup>1</sup> Chico.....	15,000	<sup>2</sup> Kennett.....	1,200	<sup>1</sup> Pike City.....	200	<sup>2</sup> Tuolumne.....	1,000
<sup>1</sup> Colfax.....	500	<sup>2</sup> Kentfield.....	500	<sup>1</sup> Pinole.....	1,800	<sup>2</sup> Turlock.....	4,500
<sup>1</sup> College City.....	325	<sup>2</sup> Kenwood.....	200	<sup>1</sup> Pittsburg.....	6,000	<sup>2</sup> Vacaville.....	1,250
<sup>1</sup> Colma.....	1,800	<sup>2</sup> Keswick.....	1,800	<sup>1</sup> Pleasanton.....	1,500	<sup>2</sup> Vallejo.....	15,500
<sup>1</sup> Columbia.....	250	<sup>2</sup> King City.....	1,500	<sup>1</sup> Port Costa.....	1,000	<sup>2</sup> Vina.....	300
<sup>1</sup> Colusa.....	2,000	<sup>2</sup> Knights Ferry.....	250	<sup>1</sup> Princeton.....	300	<sup>2</sup> Vineburg.....	200
<sup>1</sup> Concord.....	850	<sup>2</sup> Knights Land- ing.....	400	<sup>1</sup> Red Bluff.....	3,530	<sup>2</sup> Walnut Creek.....	500
<sup>1</sup> Coram.....	666	<sup>2</sup> La Grange.....	260	<sup>1</sup> Redding.....	3,572	<sup>2</sup> Warm Springs.....	200
<sup>1</sup> Cordelia.....	300	<sup>2</sup> Larkspur.....	2,000	<sup>1</sup> Redwood City.....	4,200	<sup>2</sup> Waterford.....	300
<sup>1</sup> Cornutt.....	972	<sup>2</sup> Lewiston.....	200	<sup>1</sup> Richmond.....	16,500	<sup>2</sup> Watsonville.....	6,000
<sup>1</sup> Corte Madera.....	350	<sup>2</sup> Lincoln.....	1,500	<sup>1</sup> Rio Vista.....	1,000	<sup>2</sup> Wheatland.....	500
<sup>1</sup> Cotati.....	200	<sup>2</sup> Live Oak.....	300	<sup>1</sup> Ripon.....	300	<sup>2</sup> Williams.....	625
<sup>1</sup> Cottonwood.....	400	<sup>2</sup> Livermore.....	2,500	<sup>1</sup> Riverbank.....	400	<sup>2</sup> Willows.....	1,139
<sup>1</sup> Coyote.....	200	<sup>2</sup> Lomita Park.....	450	<sup>1</sup> Rocklin.....	900	<sup>2</sup> Winters.....	1,200
<sup>1</sup> Crockett.....	3,000	<sup>2</sup> Loomis.....	450	<sup>1</sup> Rodeo.....	300	<sup>2</sup> Woodland.....	5,000
<sup>1</sup> Crow's Landing.....	300	<sup>2</sup> Los Altos.....	500	<sup>1</sup> Roseville.....	4,200	<sup>2</sup> Woodside.....	225
<sup>1</sup> Daly City.....	5,500	<sup>2</sup> Los Gatos.....	3,000	<sup>1</sup> Ross.....	900	<sup>2</sup> Yolo.....	350
<sup>1</sup> Danville.....	400	<sup>2</sup> Los Molinos.....	200	<sup>1</sup> Sacramento.....	76,000	<sup>2</sup> Yuba City.....	1,750
<sup>1</sup> Davenport.....	300	<sup>2</sup> Madison.....	250	<sup>1</sup> Salinas.....	5,500		
<sup>1</sup> Davis.....	1,700	<sup>2</sup> Manteca.....	2,500	<sup>1</sup> San Andreas.....	750		
<sup>1</sup> Decoto.....	300	<sup>2</sup> Mare Island.....	500	<sup>1</sup> San Anselmo.....	3,000		
<sup>1</sup> Del Monte.....	300	<sup>2</sup> Martinez.....	3,500	<sup>1</sup> San Bruno.....	1,500		
<sup>1</sup> Denair.....	200	<sup>2</sup> Marysville.....	6,000	<sup>1</sup> San Francisco.....	580,000		
<sup>1</sup> Dixon.....	1,200	<sup>2</sup> Maxwell.....	480	<sup>1</sup> San Jose.....	45,000		
<sup>1</sup> Drytown.....	225	<sup>2</sup> Mayfield.....	1,100	<sup>1</sup> San Juan.....	550		
<sup>1</sup> Duncan's Mills.....	200	<sup>2</sup> Menlo Park.....	1,100	<sup>1</sup> San Leandro.....	5,000		
<sup>1</sup> Durham.....	300	<sup>2</sup> Meridian.....	225	<sup>1</sup> San Lorenzo.....	400		
<sup>1</sup> Dutch Flat.....	750	<sup>2</sup> Millbrae.....	300	<sup>1</sup> San Martin.....	200		
<sup>1</sup> Eldridge.....	500	<sup>2</sup> Mills.....	350	<sup>1</sup> San Mateo.....	6,000		
<sup>1</sup> El Cerrito.....	1,200	<sup>2</sup> Mill Valley.....	3,200				
<sup>1</sup> Elmira.....	350						

Unmarked—Electricity only.

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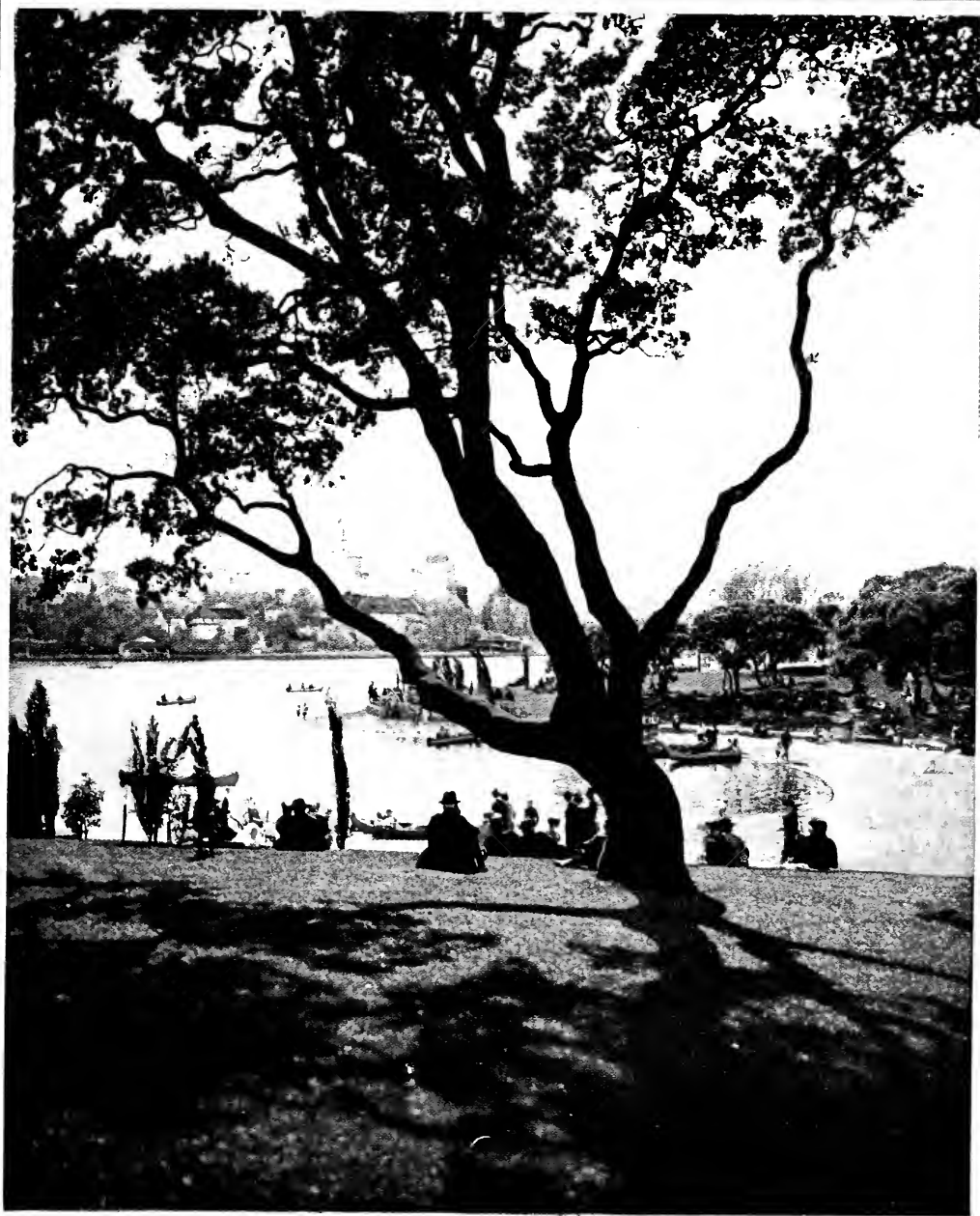


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# PACIFIC SERVICE MAGAZINE

PUBLISHED MONTHLY BY THE PACIFIC GAS AND ELECTRIC CO. SAN FRANCISCO



LAKE MERRITT, OAKLAND, A MUCH FAVORED RECREATION SPOT

Vol.  
12

MAY 1921

No  
12

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# Pacific Service Magazine

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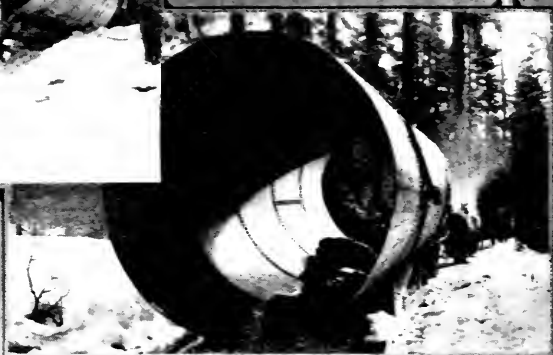
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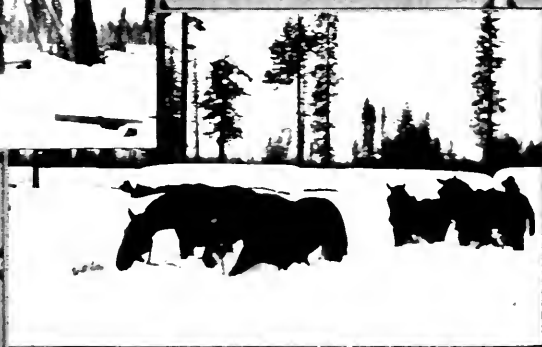




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Winter scenes at our Company's Pit River development projects. The upper and lower views give the reader an idea of what the transportation problem meant during the stormy months. Note the size of pipe required for the penstocks at Hat Creek Nos. 1 and 2. The center view is of Bartle, the present terminus of the McCloud River railroad, whence all the hauling to Hat Creek and Fall River mills has to be done over rough roads. Our company is now engaged in extending this railroad to the Pit.

## *Progress On The Pit River Project Under Winter Conditions*

By GROVER C. GREEN

Field Engineer, Division of Civil Engineering

*The subjoined article deals with construction work accomplished during an exceptionally trying winter season. It is to be understood, of course, that considerable progress has been made since the article was written. It would be impossible, indeed, to present to our readers anything like an up-to-date report on this big job, in view of the speed at which it is being rushed to completion.*

—EDITOR PACIFIC SERVICE MAGAZINE.

The winter of 1920-21 in Shasta County was a decidedly unfavorable one from a construction standpoint. Since the progress of the work on the Hat Creek and Pit River No. 1 jobs depended, for the most part, on getting in materials and equipment, the story of the work accomplished during the winter months becomes largely a story of transportation in all its phases.

The storm of November 10th, 1920, marked the beginning of winter for the construction and field engineering departments, for thereafter roads became rapidly worse as the precipitation increased. This condition continued throughout the winter; however, considerable progress was made in actual construction, which is outlined and described in the following lines.

At Hat Creek No. 1 the canal leading from the diversion point at Cassel to the Forebay and head of penstock was excavated to full section during the winter season. This canal is 2750 feet in length, and 26,000 cubic yards, the greater percentage of which was solid rock, was excavated. The canal section has a depth of 10 feet, bottom and top widths 17 and 37 feet respectively. Because of the large section and great yardage to be excavated, it was impossible for the Marion 40 steam shovel to make the excavation alone; therefore, an independent elevator was constructed consisting of a track sloping at an angle of about 30 degrees with the horizontal and a car

having a carrying capacity equal to the one cubic yard dipper of the shovel. The car was pulled up this incline, after receiving its load from the shovel dipper, by means of an air hoist which was independent of the steam shovel and re-



Power-house at Hat Creek No. 1 as it looked on January 29th.



Pipe line right of way at Hat Creek No. 1 in early stages of development.

ceived its motive force from an electrically-driven air compressor located at the Forebay. The upper end of the incline was so constructed that the car dumped its load automatically when it reached the top. This elevator was moved along the berm of the canal by its own power.

Drilling of the canal prism was done partially by hand drills and with jackhammers which were operated with air furnished by the compressor at the Forebay. Shooting was done with electric batteries or power furnished from the 110-volt power line close by. As many as 30 holes, comprising the full canal section for a distance of 30 to 35 feet, were shot at one time. Bed rock broke generally into huge boulders weighing several tons, some of which were hurled completely clear of the canal by the shot. Those

remaining in the canal prism and on the berm were afterward drilled and shot again to reduce them to a size which could be handled conveniently by the steam shovel.

At Number 1 Forebay some excavation of core trenches for the embankments was accomplished, but the weather continued too bad to carry on this work until the winter season had passed. The excavation of the penstock trench was completed before

winter set in. However, the bridge for the penstock crossing of Hat Creek was built and the lower portions of the two large penstock anchors were poured during this period.

The steel for Hat Creek No. 1 power house was erected during this period. A steam donkey engine and a stiff-leg derrick, built on the job, were used in its erection. Air for

riveting the steel was furnished by the compressor at the Forebay. This work was delayed greatly by the difficulty of



Copper wire for the two Hat Creek developments.



First concrete pouring at Hat Creek No. 1.

getting the heavy pieces of steel in from Bartle over winter roads. Five hundred cubic yards of concrete were placed in machinery foundation and building walls; likewise 57 cubic yards of concrete and 125 cubic yards of masonry were placed in the tail-race during the winter.

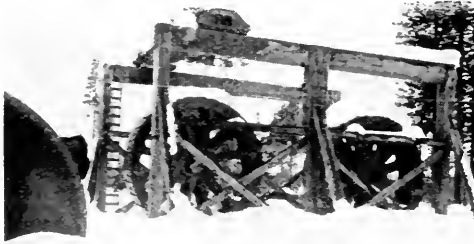
On Hat Creek Development No. 2 the diversion dam was started. This is a timber structure consisting of two rows of piling which will be heavily braced and faced with sheet piling. To date the piling for 230 feet of this structure has been driven, a small portable pile-driver being used for this purpose. The hammer is raised with a small gasoline hoist mounted on the framework of the driver. This dam will raise the water surface at this point  $5\frac{1}{2}$  feet, backing the water up into the afterbay of Hat Creek Power House No. 1.

The flume bench excavation was nearly completed before winter set in, but a considerable amount of work was done during the winter months in the way of increasing side slopes where necessary, and completing the large chalk cut near the diversion dam. On this bench the



Canal at Hat Creek No. 1. Water was turned in to test for leakage.

big flume, 16 feet  $3\frac{1}{2}$  inches wide by 8 feet deep and 4470 feet long, will be built; 60% of the lumber for this was delivered to the job before winter set in. This lumber was framed ready for erection in the flume during the winter with machinery specially designed for this purpose.



Rotors for Hat Creek generators.

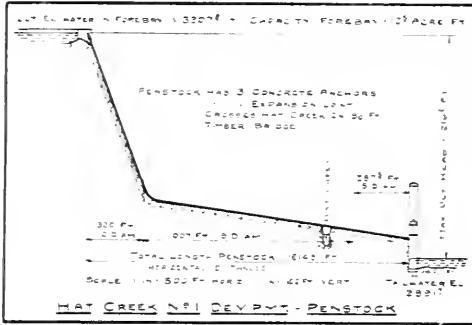
At the power site for Hat Creek No. 2 work has progressed slowly during the winter, due to lack of materials. How-

ever, 1970 cubic yards of concrete were poured in machinery and building foundations, and at this time the erection of structural steel frame of the building is going rapidly ahead. The electric hoist which operates the tram from forebay to power site was used in connection with a gin pole for the erection of the steel.

At Pit River Development No. 1 Contractor Francis Rolandi drove steadily away at the two-mile tunnel through Saddle Mountain. This tunnel has a horseshoe shaped section of 154.5 square feet in area, a maximum height and breadth of finished tunnel of 14 and 13 feet, respectively. At the intake end of the

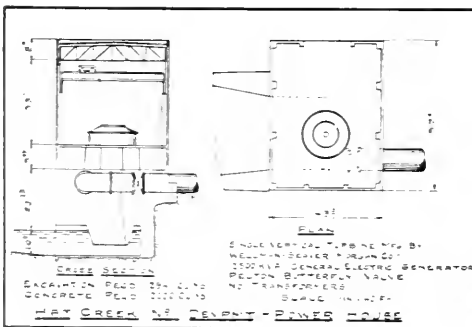


Jim Martin talking it over with Grover Green.



tunnel a vertical shaft was driven at an angle point in the tunnel alignment, from which the tunnel is being driven in two directions, viz.: 850 feet to the east portal, and southwesterly to meet the other heading being driven from the west portal. This shaft has a section of 8 feet by 8 feet and is 70 feet in depth. At the present writing 902 feet of tunnel has been driven from this shaft and 553 feet from the west portal, making a total of 1455 feet of tunnel driven.

Large Water Leyner air drills are used in driving the tunnel, the section being

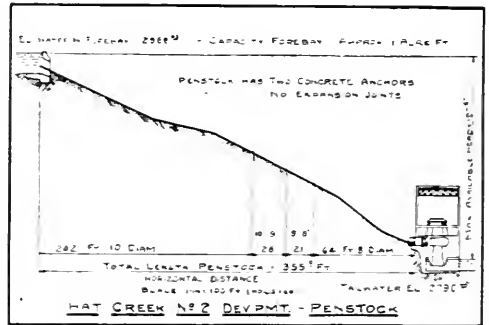


driven by the heading and bench method. Air is supplied the drills by two Laidlaw-Dunn-Gordon air compressors, one at each end, which are electrically driven with power supplied by the temporary power plant constructed last year at Fall River Mills. Hoisting at the shaft is done with an electrically-driven hoist. Compressed air operated mucking machines are now being used at each end of the tunnel.

A large portion of the tunnel driven has

had to be timbered. Timber for this purpose is cut at the Glenburn saw mill and is rafted down the river to the intake, where it is loaded on a car and trammed directly to the shaft or hauled by teams over Saddle Mountain to a point above the west portal, from which point it is shot down a chute built down the mountain side to the tunnel portal.

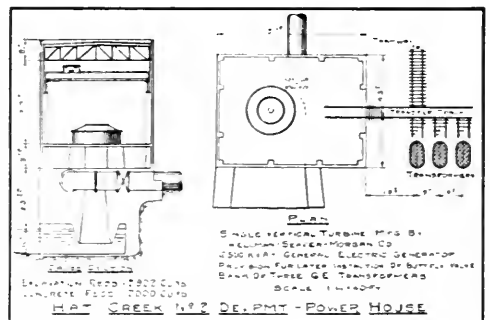
At the west portal the grading for a tramway from the top of hill to the portal is 90% complete. This tramway will eventually be extended to connect



with the power house site and perhaps the east end of the tunnel. At the power site the surrounding ground has been cleared of brush and a roadway constructed from the power house to connect with a temporary bridge now being constructed across Pit River.

A test pit has been sunk within the power house location to determine the character of foundation, work on which was made difficult by the great quantity of water encountered.

This is practically all of the progress





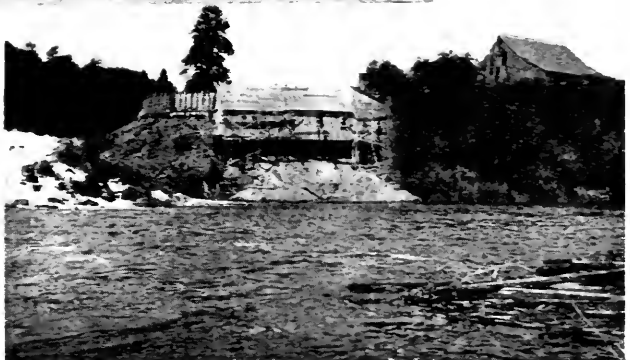
accomplished during the winter season. If the winter had been a usual one for this section the story would have been different and the work on the Hat Creek jobs, particularly, well along toward completion before the spring. A usual winter here, old timers say, is an open winter, when for weeks at a time the thermometer stays well below freezing and the snow lies deep and well crusted on the roads. If this had been the case last season all the heavy pipe and machinery necessary for the rapid completion of Hat Creek Power Houses No. 1 and No. 2 would have been



hauled on sleighs directly from Bartle to the jobs. Not so the case during the past winter when, after the storm of November 10th, mentioned above, one storm followed another with such regularity that the roads were kept drenched

with water or full of new snow three-fourths of the time. The weather record kept at Hat Creek No. 1 shows that not one day during the whole winter did the thermometer stay below freezing.

The road from Bartle to the Hat Creek jobs crosses the summit of the Cascade Range of



Building temporary power plant on Fall River.



mountains at an elevation of 4800 feet and descends the east slope of the range to an elevation of

2700 feet at Peck's Bridge and ascends again to an elevation of 3000 feet at Hat Creek No. 1 and No. 2. The distance to either of the Hat Creeks is 33 miles, and the past winter conditions divided this distance into two sections, viz.: Bartle to the snow line above Cayton Valley, 18 miles, and from snow line to the jobs, 15 miles. The first section is the snow road, and it was on this section that the greatest efforts of the transportation force of the construction department were spent and where most was accomplished. Over this section, in addition to the supplies necessary to keep the camps operating during the winter and several tons of structural steel for power houses, were hauled 45

sections of the big pipe for Hat Creek No. 1 plant as well as some of the heavy pieces of turbine machinery for the power house itself. These now lie at the snow line awaiting the drying up of the dirt roads suffi-

ently to support these heavy weights.

It was a difficult and discouraging task to break this road, often through three or four feet of snow, men and teams making camp at night exhausted, only to

waken on the morrow to find an equal amount of snow fallen during the night, confronting them. However, they



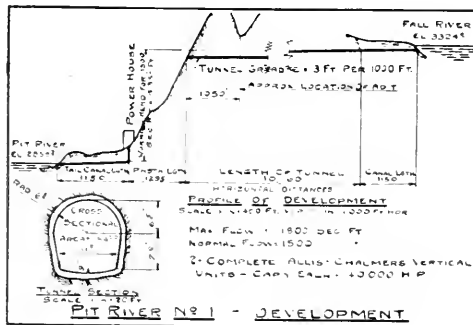
Fall River, showing diverting point and route of canal to tunnel intake. Point of intake. Site for bridge across Pit River at point of development No. 1.

persisted and finally succeeded in packing a road-bed over which the heavy pieces could be hauled.

The second, or dirt road section, was by far worst of all. Mud became axle-deep, and in spite of efforts to corduroy the worst places and keep the road open for traffic, it became almost impassable. Frequently it was a two-day task for a six-horse team to draw a wagon and load

of one ton over this 15-mile section.

And now spring is here. It is hoped that the Fates will be kind now and give the conditions needed for the rapid completion of the first step in the great Pit River development.





## Three Policies for the Public Service Industry

By W. E. CREED

*The following is the fourth of a series of short papers by our Company's President on matters vital to the public service, particularly the problems in whose satisfactory solution the public service corporations and the public they serve are mutually concerned.—EDITOR PACIFIC SERVICE MAGAZINE.*

In contrast with the failure of local regulation, state regulation has permitted and encouraged the adoption of sound principles and sentiments in the public service industry. The baneful influence of local regulation created many unhealthy conditions. Not all of them need be enumerated but at least two can profitably be recalled. First, local regulation forced the industry into politics, even against its will, and, second, caused the industry and the public to draw apart. Both results proved disadvantageous alike to the companies and their customers. On the other hand, state regulation enabled the industry to withdraw from politics and submit its regulation to an impartial and competent body of experts and also to come to better understandings with the public.

From the progress of the past ten years, the hope may be ventured that eventually the industry can cement a relation with the public which will be to the obvious advantage of both. Future progress will depend in large part upon the policies of the industry. Three essential policies are herewith submitted.

1. *The policy of service.* No other business has learned so well the wisdom of service as the public service industry. The ideal of service is thoroughly established as its guiding star. In practice, the industry has given ample demonstration of this fact. For example, there was not a single public service company in California, which sought a profit or made a profit during the war. The appeal of the industry in wartime was simply that it be given the revenue to meet the rising costs brought about by the war.

An excellent definition of service is that it is "a state of mind—a quality, not a thing." There is much truth in the suggestion that service depends on one's attitude toward the subject. As a practical matter, service must be definitely interpreted both for the organization and

for the management as a whole. Properly interpreted and understood it will imbue both management and organization with a desire to search out what they can do to promote the public interest. It will go further and direct the efforts of the organization to securing good will as much as securing the revenue to meet costs.

Obviously, the service ideal requires that the commodity sold be of good quality, be delivered promptly on demand and continuously as demanded and be sold, without discrimination, at as low a cost as skill, diligence and reasonable foresight can produce. But it requires even more. The attitude of the entire organization towards the public must be one of friendly helpfulness. A real test of service comes in the adjustment of complaints. Here there is need for courtesy, tact, patience, sympathy and the ability to make that clear exposition of facts out of which understanding and concord develop.

Service does not begin and end in contact with the public. The industry must lead in the development of the arts and sciences on which its business is founded. Most large companies accept this aspect of service and consequently maintain laboratories and research departments to discover improvements which will reduce costs or add to service without increased cost. The public is entitled to a progressive policy in this regard.

Finally, service requires that the industry concern itself with its organizations. In the long run the degree of service attained will depend on the quality of an organization. The obligation therefore rests upon the industry not only to select employees of the highest type but to give them the opportunity to grow in technical skill and to acquire a broad understanding and vision of the business to which they devote themselves. It is not too much to say that company success will be circumscribed by their welfare and their abilities.



2. *The policy of frankness.* The public service industry as a whole should adopt the policy of frankness. Many companies have done so; all the others should follow. Suspicion feeds upon concealment. Most of the distrust of the industry arises from things imagined and not from things known. The facts today are greatly to the credit of the industry, and the facts will do more than anything else to remove doubt, suspicion and question in the public mind. Operations, policies and decisions, which are criticized, should be explained with complete frankness, and in such a way that the reasons compelling them are perfectly clear and well understood. In short, the public should be taken "inside the business" and, when it is, the public's verdict will generally accord with what management is doing.

In the day-to-day life of the companies there are countless incidents which appeal to public interest and give a conception of what must be done to produce the service so commonly accepted as a matter of course without any comprehension of the skilled organization and eternal vigilance behind the service; in the story of the economic position and importance of the industry, there is abundant opportunity to bring the public to the attitude of appreciation, and in the exposition of plans of expansion and development, romance, adventure, accomplishment will stimulate public support and co-operation. But the fact should not be overlooked that the frank boast of performance requires the equally frank admission of error. Perfection is neither possible nor expected by the public. It does, however, demand that it be neither fooled nor "stalled." The best remedy for resentment against service difficulties due to mistake, oversight or even causes beyond human control, is a frank admission of the facts.

While the public service industry is not generally competitive, it needs advertising as much as the most highly

competitive business in the world. Its chief asset is good will. This cannot be secured without carrying the facts of the industry to the great mass of the people.

3. *The policy of repelling slanders.* The public service industry has suffered outrageously from charges made without knowledge of the facts or in spite of knowledge of the facts. An analysis of the motives instigating such charges is interesting but unnecessary here. It is a curious fact, however, that the public hears these slanders against the public service industry with complacency or acquiescence, whereas it would instantly resent similar slanders against the banking business. Yet both are public servants, both are regulated, both are honest, both charge for their services and both are of vital importance to the public. This public attitude is probably an inheritance of the past, but whatever the explanation, the plain duty rests upon management to repel slander. The public is entitled to know the facts, and the interest of both the public and the industry requires that the facts be known. Unless they are known, there can be no substantial basis for that mutual confidence and co-operation between the public and the industry which best serves the interest of all.

On the whole, management has overlooked an opportunity for real service in failing to protect the public against deception through unfounded charges. The policy of silence has often left impressions from which have come antagonism and suspicion. Both can be eliminated, if the determination exists to see to it that the public is not misled but is put in possession of the truth.

To the extent the industry follows these policies, it will find an improvement in its public relations and an increasing co-operation from the public.



## *Our Gas Distribution Department in San Francisco*

By W. M. HENDERSON, Engineer

Service, to be continuously rendered, is dependent on organization. This fact is not alone recognized, but acted upon in gas distribution practice in the San Francisco division. The various phases of the work involved, in order to properly convey to the consumer the convenience of gas fuel, are far more diversified and different in character than experienced in any other industry. From producer to consumer is the province of the Distribution Department. This necessitates a line of communication that is linked together by mains and services, meters, housepipes and appliances; they all represent the conveyance and each in itself is as important a feature and as essential as another.

Mere lines or divisions to mark the various functions for which the Gas Distribution Department is responsible do not necessarily make up its organization. Such grouping is for convenience and order in the dispatching of the work that falls to the department as a whole. That is, organization is only the vehicle, but

it requires men to make it progress. The gas business is no exception and such men as are recruited to its service and assume its responsibilities are proud of the profession and jealous of its reputation. The gas business is an essential that combines the qualities of a luxury, in as much as it contributes to the sum of human happiness. It is a business that is not alone fascinating, but strenuous as well. To succeed a man must be possessed with patience, perseverance and persistency. They are the three P's that make Perfect the value of a man to himself and others.

In the Distribution Department in the San Francisco division every man in a position of responsibility has served years in the business. Most of them over ten years with the company, and, in some cases, wear a diamond in their service badges. This fact is a testimonial to the industry and certainly a credit to the men who have profited on example set by the postage stamp; stick to a thing till its purpose is served.



812 Howard Street, San Francisco, Home of the Gas and Electric Operating Department and the San Francisco Supply Warehouse.

The work of the department is of such nature and extent that in order to properly carry it forward it must be spread over various divisions, each responsible for a particular feature of the service. The organization lines consist of office, main and service department, service to consumer, gas meter repair shop, transportation.

**OFFICE**—The office is responsible for all of the activities carried on by the various departments. All of the work originates here. Plans, estimates and engineering are a part of the office function. All accounting is centered in the office, together with the compiling of

of eliminating the cause. The dispatch desk routes all work except maintenance and construction on main and services; this is in the hands of the foreman in charge. The amount of tags handled by the dispatch desk per day amounts to on many occasions well over 1,000 and seldom falls less than 500. Such tags cover sets, outs, changes, locks, unlocks, non-payments, complaints, statements. When you consider the number and the variety, a word of praise is due the men for the very few occasions that there is cause to criticise their work. Every tag of this nature involves a consumer and fully 20,000 consumers are visited per month.



Interior of the Gas Distribution Office. Here all work originates and records are kept. Dispatch desk is in the center of the picture.

statistics and recording of data, service records and street main records. Construction and maintenance work and miscellaneous jobs are all ordered under the job number system. A complete record for cost data is thus kept at this office. Service to consumer, such as setting meters, changes, etc., as well as complaints are issued by tag. A dispatch clerk with telephone facilities sufficient to keep in touch with the men properly cares for this function of the department's work. A complete file of consumers' complaints is maintained at the office. This file is very active as it is continuously referred to for the purpose of disclosing chronics with the view

A house-pipe inspection service is maintained. A man from the office is assigned to this work. His particular duty is to secure satisfactory meter locations on all new buildings. He assists the plumbers or contractors in laying out piping design and selection of proper size pipes. He tests all house piping for tightness, and issues a certificate to this effect. As a protection to the ultimate consumer no meter is set unless new piping has received the inspector's approval. In addition, all street paving inspection is reported by this inspector who keeps a general lookout for any activities on the streets that may be of interest to the department.

**MAINS AND SERVICES**—The construction and maintenance of all sub-surface installations are charged to this division. Such responsibility covers all high and low pressure transmission and distribution mains, district governors and services, as well as such equipment and shops as are necessary to properly carry on the work.

The work of the department is by no means confined to construction and maintenance. Operation is quite an item. A continuous survey of pressure conditions is carried on. Forty-three high and low pressure charts are picked up daily for this purpose. Most of these are from permanent stations established at various locations throughout the city. From such is determined the pressure that must be carried at the works or maintained by a district governor. By constant vigilance in this detail it has been possible to comply throughout the city with the order of the California Railroad Commission governing the service pressure. In no section of San Francisco is there a pressure variation at the consumer's service in excess of four inches.

The removal of condensation from street drips is an operating item that receives proper attention, and a close record of quantities and visits is maintained. A continuous check is kept on all sub-surface activities of other public utilities, sewer contractors and the Municipal Board of Works. This is in line with the eternal vigilance that is maintained by the department, to seek every possible source of gas leakage. That it pays is evident by the wonderful reduction in unaccounted-for gas which now stands at about 9 per cent when 16 per cent was for years an accepted evil.

This division is well equipped with

shop facilities, for general repairs to equipment such as governors, regulators, gauges, gas tools and apparatus used in gas construction. Mechanical equipment is used to quite an extent and with such satisfaction that new experiments in this respect are constantly being tried.

The responsibility for the division rests with a general foreman who is aided by an assistant in charge of all the crews engaged on construction and maintenance.

**SERVICE TO CONSUMER**—All contact with the consumers is centered in this division. The men employed on such work as brings them on the prem-



Office of the Engineer of Gas Distribution. Electric Department in the background.

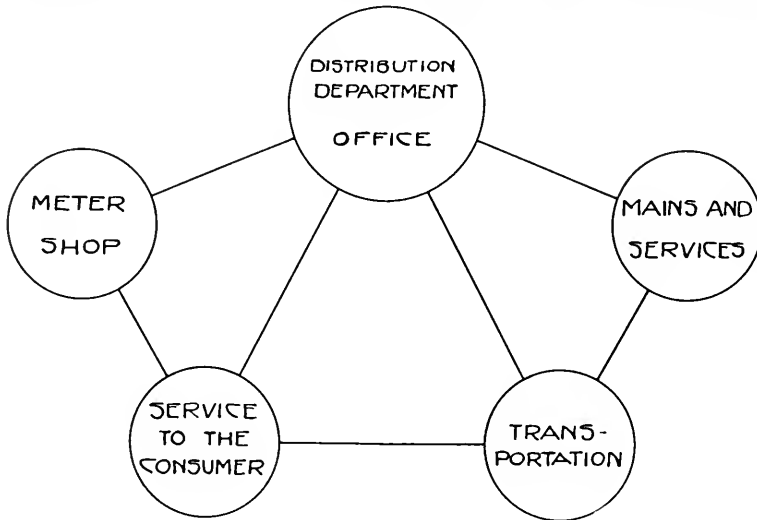
ises of the consumer are prepared to take care of such miscellaneous orders as complaints of poor gas, appliance adjustments, meter setting, changing, etc. Each man covers a district in the town. It is endeavored to leave the man continuously in the same district. In this way he becomes acquainted with the consumers and can serve them better. He also has a better knowledge of the location of the company's meters and type of gas equipment on the premises. Additional men are employed on special work such as clearing house lines, maintenance on industrial equipment or house heating appliances. These men are fewer in number and cover a much larger area. The necessity for carrying this extra

force is one of economy as well as rendering rapid service in the case of minor complaints and applications for gas service. The special men have been found essential in handling house pipe stoppage. Two men are necessary; the usual district meter and complaint men do not carry helpers. Maintenance on house heating appliances and industrial equipment often requires considerable time. The usual district man takes care of it if but a few minutes' attention is all that is necessary, otherwise he refers it back to the office for attention by one of the special men. The reason for this plan is evident. The district man has many

This can be done without difficulty or delay by proper timing, as many of such jobs require at the minimum two hours and often exceed a day. These jobs are used to maintain an organization of a few extra men for the purpose of taking care of any excess of complaints over the normal. On such occasions they are furnished with transportation and routed similar to the district men.

In addition, seven men are engaged continuously on gas arc maintenance. These men work on foot and are routed in such a manner that every arc in service on a maintenance basis is visited at least once every week or ten days, depending on the season of the year.

The responsibility for carrying on the work classified under consumers' service as described above is divided between two foremen. One is trusted with the men engaged on complaint work, such as poor gas orders and appliance maintenance including gas arcs. The other foreman supervises all new meter sets,



Organization Plan, Gas Distribution Department, San Francisco Division.

minor tags for various jobs and if he spent too long a period on one job many consumers would be inconvenienced by the delay.

All large meter sets and most new sets, that is, where meters have never been on the premises before, are handled by two separate crews. This for the same reason as special complaint men are employed. These two crews consist of fitters and helpers and each is supplied with motor truck and equipment for this class of work.

Another set of men is engaged on re-setting of meters and alterations to meter settings necessitated by changes to the premises. Such fitters work on foot. All material necessary for any job they engage on is delivered by auto truck, which also conveys these crews from job to job.

alteration work and the resetting of meters. In addition he makes all estimates on cost jobs to be paid for by consumer. This feature works out very conveniently for the consumer, because this man supervises all such work and can route the fitter who is to do the work and thus fix with the consumer a convenient time.

**METER SHOP**—The Meter Shop facilities of the San Francisco division are about as complete as any gas company can provide itself with. This shop is located on the top floor of the new garage building. It is laid out with a view to convenience and efficiency; it is properly ventilated and possesses an abundance of natural light. Particulars of its design and operation will be given our readers in a separate article to appear shortly.



MEN IN CHARGE OF ACTIVITIES IN THE GAS DISTRIBUTION DEPT.:

Left to Right: E. T. Floyd, Frank English, E. C. Wood, Herbert Richter, E. Campbell, W. M. Henderson, Arthur O'Neill, Walter Steel, D. Gray, Wm. Pfluger, Geo. Hold, Wm. Taylor.

**TRANSPORTATION**—All automobile equipment and livery hired vehicles are centered under the supervision of one man. He assumes the responsibility to keep transportation actively engaged in its proper function. His attention is given only to operation, the maintenance and repairs of automobiles is taken care of by the San Francisco division garage which is a department in itself. Operation includes the assigning of cars and instructions in the care and driving of same. The drivers of cars are expected to give same proper attention, particularly on minor details that are so easily and often neglected. Grease cups turned down each day and filled when necessary, tires are tested when car is equipped with pneumatics. When driver is going over car or during the day if any loose equipment is observed it is immediately reported and taken care of by the night crew at the garage.

A log record of the maintenance on all automobiles is maintained at the office on information furnished by the foreman in charge of transportation. This log includes dates of battery testing and test. Relining of brakes, if too often, then driver is schooled in the proper use of same. General repairs and just what work is done on a car when it goes to the garage shop.

There are in service, or held as spares or for emergency purposes, 46 automobiles, from the capacity of a Ford to two-ton delivery trucks, assigned to the work of the Gas Distribution Department.

The garage, like the meter repair shop, will be featured in a separate article.

The department that assumes the responsibility for the distribution of gas is not only well organized, but considering the quantity and variety of work it is engaged on, it is a going concern on a very limited force. The total employed

does not exceed 160 people of which 12 are employed in the office, 60 on main and service work, 54 on meter sets and complaint work and 34 in the meter shop.

During 1920 the various work that was executed by the department but illustrates the meaning of quantity and variety.

For instance:

- 90,602 total feet of main laid and overhauled.
- 3,193 services installed and overhauled.
- 252 Lamp-posts replaced (mostly knocked down by automobiles).
- 5 district governors installed.
- 16,149 drips pumped.
- 165,874 gallons of condensation collected.
- 11,098 pressure charts collected.
- 3,546 house pipes inspected.
- 164,655 complaints (total all kinds).
- 68,731 meter sets, removes, changes, locks and unlocks.
- 16,610 meters tested on premises.
- 41,121 meters delivered by meter shop.
- 4,354 gas arcs installed, removed, replaced and repaired.
- 108,393 number of visits by arc trimmers.

The same program is promised for this year, for which we are thankful. The indications are that the record will be an even better one, for every day shows the same consistent increase of business over the same period a year ago.

# Industrial Uses of City Gas Fuel

By D. H. PELLE, Gas Sales Bureau, San Francisco Division

I am writing this with the thought in mind of giving our "Pacific Service" employees an idea of what development has taken place within the last few years in the heating of rivets.

The great world war has had a wonderful effect on the advancement of efficiency in our industrial shops. One in particular I am going to write of and that is the use of gas fuel as a rivet heating medium. The usual methods employed in the industrial shops when the heating of metals was necessary you are all familiar with, such as the use of coke, coal, oil, etc.

Manufacturers today are as much interested in production methods as they are in production costs, because efficient methods mean reduced costs, and in the last analysis it is not a question of fuel per ton, gallon or cubic foot, but the ultimate cost per unit of product.

Gas fuel saves two-thirds of the factory floor space, in most cases considerable labor, insures absolute reliability and uniformity of temperature, eliminates smoke and excessive heat, and saves fuel by a more efficient application.

As the writer has had the opportunity to go through the transformation of fuel at the shipyard, I will describe the equipment used there.

At most yards a gas mixing machine is employed where 1.6 cu. ft. of air is mixed with each cubic foot of gas, and this mixture of gas and air, which is non-explosive, is sent to the forges. At each forge is a Bunsen burner adjusted to admit 3.4 cu. ft. of air to 2.6 cu. ft. of gas and air mixture supplied by the pipes; this provides in all five cubic feet of air to each cubic foot of city gas, which allows complete combustion without an excess of oxygen to start scaling of the rivets. With this mixture established, the size of burners, the size of the combustion chamber and the valve control will determine the number of pounds of rivets that can be heated per minute. The amount of gas used will, therefore, vary with the work done and, also, with the skill of the operator. With 300 forges at work and unskilled operators, the cost of gas per forge per shift ranged between 30c. and \$1.30.

Now I will take you from the shipyard to the structural iron plant, where they are fabricating for bridge work, buildings, etc., and employ bull and hand riveting equipment. The gas equipment is somewhat different here, as the gas and air are both delivered to the forge and there mixed for complete combustion in a mixing tee. In this kind of equipment we have found positive pressure air at about a pound and a half pressure; most efficient, although many plants utilize high pressure air with a reduction valve on the line or employ an inspirator or injector. This I will explain.

The inspirator is nothing more than a pipe fitting called a cross, size 2 ins. Within the cross is inserted a 1-in. pipe tee, the object being to inspire atmosphere into the cross to supply volume, at the same time cutting down the use of such a large volume of high pressure and then, again, inspiring the gas to make the explosive mixture supplied to the burner.

The object of the blast burner is to supply all the air necessary for complete combustion before gas is burned and the result is, we get a flame of much higher velocity and are able to burn considerably more gas in a given area than we could with the atmospheric or fan type of burner.

The following is the actual gas cost per rivet of the last application mentioned for an average of six months:

Average rivets driven, 70,000 per month.

Size rivets driven,  $\frac{3}{4}$  x 3.

Average bill per month, \$57.00.

Average cost per rivet, \$0.008147.

In the erecting of steel buildings gas rivet heating should be an indispensable fuel.

At this juncture I imagine it would be interesting to note my conversation with the superintendent of the structural iron shop that I have just mentioned after the installation of gas for their rivet heating.

Engr.—Are you satisfied with gas as a fuel for rivet heating?

Supt.—Yes, more than satisfied. Why, my men are at work driving before they ever did with the other fuel.

Engr.—Do you remember our first conversation, when I approached you to make use of gas? It was a question of fuel costs alone, namely, between oil and gas. I admitted that if we were to figure fuel cost alone it would be found that gas for this purpose would prove a little more expensive, but our fact leads us not only to the application, but also to the burning of the fuel which we found most efficient with gas, as liquid fuel really is mixed in the combustion chamber of the appliance and, as can readily be seen, will not burn with the same efficiency. Gas is mixed with the air outside of the appliance and delivered to the combustion chamber completely mixed, thereby getting more efficiency out of the B. T. U. forced into combustion chamber than by liquid application. Do you burn many rivets in the gas forge?

Supt.—No, we do not. Say, the old liquid fuel certainly did eat rivets, but now we can keep the same even heat all day long.

Engr.—Do the rivets scale much?

Supt.—No, since you have shown us how to regulate the atmosphere of the forge we find that there is hardly any scale.

Engr.—That is one of the benefits of the gas forge. You can regulate your atmosphere so that you can eliminate scale. How about the men, are they satisfied?

Supt.—Yes, they are. I remember before we put gas in the men were working piece work and would be making a good day of it when we would run out of oil and, say, what a yell would go up. Now, as you well know, there are no more storage tanks to fill up, no more pumps to get out of order and we go through the whole day without a hitch. One good thing now, the old gas pipe is always full and we never can empty it.

I have written of this conversation to give you an idea of what this shop superintendent thought of gas and I think he has gained a very good lesson in efficiency. Sometimes a man will pay a little more and get efficiency; in other words, take a dollar from one pocket and put two dollars in the other pocket, and efficiency really means better product and greater production. We can give you that with gas, so why not make use of it.

Many structural shops have availed themselves of the opportunity of making use of this fuel and not only for rivet heating but for the use of a cutting medium instead of other gases. City gas to industries will range somewhere around 90c. per 1000 cu. ft. and other cutting gases about \$25.00 per 1000 cu. ft., so you can see the saving and practical economy in its use also eliminates the use of containers.

## READERS OF PACIFIC SERVICE MAGAZINE, TAKE NOTICE

This number is the last of Volume XII, and, as has been done in the past, each district office will be supplied with a bound copy for the office library.

Those who have all the copies of Volume XII, or any previous volume, in perfect condition, may have them bound by forwarding them, charges prepaid, to the Stationery Department. The charges for binding will be \$1.25 per volume, and remittance must accompany magazines. Forward magazines and make remittance to

STATIONERY DEPARTMENT—Pacific Gas and Electric Company  
445 Sutter Street, San Francisco

*Name of sender with full and complete address must be plainly marked on each package.*

No magazines or remittance will be accepted after June 30th.



# Complaints

By J. CHAS. JORDAN, East Bay Division

Theoretically there should not be any complaints. If each task were completed to the entire satisfaction of the one for whom it was done there would be no complaints. Let us assume that the individual desires to make no error and that he or she could "do unto others as they would wish done unto them."

It has been my opportunity to learn that the primary reason for complaint against public utility service is through misunderstanding. Most patrons realize and believe that the management and employees desire to be fair, honest and without error in their dealings with the public they serve. Also, the public, the management and the employees are fully aware that the utility is wholly dependent upon public good will for its existence.

Much misunderstanding was brought about primarily by two distinct agencies, the politicians and the newspapers.

In the days gone by, and to some extent now, politicians endeavored and did use some utilities to further their ends in the political game. Through the press they put forth their story, always working on the sympathies and drawing word pictures of the down-trodden public. The public was receptive to this and the politician became a champion of the people against the corporation, that terrible octopus which was even going so far as to take their life blood from them. The newspapers were used to further the politicians' ends, very often in the promise of future favors. Then, too, there were many unscrupulous newspapers that would assume a hostile attitude for no other good reason than that the utility was not forthcoming with funds for campaign purposes, etc. For years, the public has been fed up on this sort of propaganda. It was a case of "come through or we are against you."

The utilities had no redress; they could not get into print and defend themselves. All papers were not conducted on this basis, but so many were that it will take years for certain classes of people to realize that most public utilities are conducted on fair and square business principles.

There are many patrons of utility companies who complain for no other reason than to withhold the payment of their bills. Some go so far as to believe that if they complain hard enough the bills will be reduced. Many complain of a bill being larger than the previous month, and when asked the amount of the previous bill are unable to tell it. So many, in telling their complaint, make reference to their neighbors' bills, which of course have no effect in the making of their bills. Complaining consumers fail to realize the longer lighting hours, the colder days, extra dinners, the porch light left burning and the many other small and varied usages that go to increase their bills.

In a large business, such as most public utilities conduct, errors are bound to creep in. Service conditions are not always as we would desire to see them and men and women employees, unfortunately, do not at all times have a pleasant smiling disposition.

A complaint that is given in the proper spirit is welcomed by the utilities, because in the adjustment there is not only a benefit to the consumer making the complaint but also to the company and other consumers who might be affected.

Today we do not hear the great clamor against the utilities that we did a few years ago. There are a number of reasons for this. The public has become better acquainted with the conduct and policies of the companies. There are, today, thousands of customer-owners, who are in close touch with the operations, through the agencies of house organs. They, with the employee, will ultimately control the destinies of our public utilities.

The public has learned, to some extent, that the political agitator has not always been true to his promises. A greater portion of the press, particularly those newspapers operated on strictly business basis and edited to give the people the news, has changed its methods and policies.

Judicious advertising has been the means of presenting the story to the public. The money spent in an endeavor to give the public the true facts is well

spent, and it will be found that the public is always willing to receive, nay welcomes the truth in matters to which it is so closely allied.

Employees to-day are treated with more consideration and the spirit with which they enter their work is reflected to the consumer. You and many others know the company only through the employee you meet. The employee, to you, is the company.

The success of any organization is dependent upon satisfied consumers. As consumers become dissatisfied they fall away, and if enough go the entire business goes with them. Most utilities are classed as monopolies, but while we in the gas and electric business have what might be classed a monopoly of the gas and electric business we do not have a monopoly of the fuel, lighting and power business. While the traction company has a monopoly on the street car lines it does not have a monopoly of transportation. So, it is very essential that utilities have satisfied customers and keep them satisfied. The very nature of the business demands that it keeps on getting new customers. To do this, the utilities must hold the old ones who will, if satisfied, be their best assets in the getting of new ones.

There is no denying the fact that, in all fairness, many complaints against public utilities find their origin in the words or acts of employees.

In many and nearly all cases, this is due to human error. Through no real intent mistakes are made, words are spoken which would not have been on a second thought or upon due consideration.

Many utilities now conduct classes for the express purpose of familiarizing the employees with the company policies and methods. Employee's Associations, talks by department heads, house-organs and get-together meetings are the means by which many employees improve their conditions and become better representatives of the company that employs them. I take it that the employee owes it to the public to familiarize himself with the

company's activities and policies. He is nothing more than a servant of the public, working through the medium of a public utility. His own welfare demands that he bring about a better understanding between the utility and the public it serves.

In every division of our Company there is a man, or there are men, whose duty it is to answer and endeavor to satisfy all complaints, no matter of what nature.

In the conduct of a large business such as ours there are bound to be complaints. When you consider the large number of people with whom we deal, the many employees, the miles of wire and gas mains and the thousand and one opportunities for errors and mistakes, I feel, and without any desire to give any undue credit, that we have proportionally very few complaints.

However, I am confident that many of the complaints we do get can be eliminated. Many of the misunderstandings can be rectified through the agency of you, the employee.

And, as a way to bring about this elimination of many complaints, I would suggest that you thoroughly familiarize yourself with that branch of the service in which you are occupied, then endeavor to absorb as much as possible of the other branches.

When confronted with a complaint, whether on the job, in the lodge room, at a friend's home or at your church, endeavor to explain to the complainant's satisfaction. If it is something, with which you are not thoroughly familiar, do not let it go unchallenged or unattended to. Refer it to someone who does know and who can give the satisfactory answer. Where you are unable to give the proper answer request that the consumer write a letter to the main office of the Division, where full particulars will be given. Defend the accusation, make award where the award is due. There is no reflection in saying "I do not know, but will find out," but the man who says "I do not know" and makes no effort to find out is to be frowned upon.



## OUR "PACIFIC SERVICE" EMPLOYEES ASSOCIATION

A snow carnival may now be regarded as an established feature among our annual entertainment events.

When the schedule came to be discussed at the beginning of this year memories of the successful trip to Auburn and Spaulding a twelve-month ago were still fresh in the hearts of all of us, and the general sentiment favored something in the way of a repetition of that event. Tentative plans had been made to hold the Drum division meeting at Grass Valley and Nevada City, but a general protest against this arrangement reached headquarters quickly, so that the Grass Valley outing was cancelled in favor of a second journey to the snowshed region. It was a disappointment to the twin mining camps, for the Chambers of Commerce of both were prepared to give us a good old-fashioned welcome, but the policy of the greatest joy to the greatest number prevailed, and the Sierra Summit, on the Truckee side, was chosen.

It was a wonderful outing. The season was ripe, for the snow lay nearly six feet deep around the Summit hotel; then, the Storm King added a couple of inches to the accumulation the night before, so that, there was good foothold for all, and the slopes were in ideal condition for skiing and tobogganing.

Upwards of four hundred signed up for the trip. The place of assembling was Sacramento and the day was Saturday, April 23rd. It was clear, cool weather and many made the journey from San Francisco, Oakland and other points by automobile. In fact, the parking problem in the Capital City was quite acute. Of course Sacramento division turned out to honor the occasion and the gathering at headquarters at 11th and K streets was of a most sociable character, with

dancing and refreshments as the main attractions.

Meanwhile, down at the depot stood a special train getting steam up to carry our "Pacific Service" family Sierraward. Messrs. Young and Henderson made the arrangements with the Southern Pacific Company and succeeded in obtaining reasonable round-trip rates for a train of standard and tourist sleepers, with day coaches for those independent of rest.

The train pulled out at one minute past midnight. Everything was done to make everybody comfortable, even to the chaperoning of the young unmarried women. Mr. M. J. Crabbe, as chairman of the transportation committee, handled the train at and from Sacramento, assisted by Messrs. W. E. Richardson, D. Moomaw, J. L. Michael, Geo. Smith, A. P. Clark, Wm. Kinz, L. Coghlan, W. E. Lininer and E. Woodruff, employes of Drum and Colgate divisions. It was a leisurely trip up the grade, so that those who had engaged berths for the night enjoyed refreshing slumber, while the younger ones who thought they didn't need sleep, made so light of their hardship that they arrived at their destination apparently as fresh as the others.

At seven o'clock in the morning the train pulled up outside the entrance to



The Sierra snows made a fine recreation ground.

the Summit hotel and there everything was ready for our reception. Our genial manager of Drum division, Herb Cooper, electrical Superintendent Bill Crabbe, Jack Eddy from Colfax, and Ed Roening, the septuagenarian hermit of Fordyce, superintended most of the arrangements, and Mr. Hugh Flynn, foreman at Wise powerhouse, also, incidentally, chairman of Drum section of the P. S. E. A., was on hand in the character of majordomo to see that everybody got everywhere and everything he or she wanted.

Breakfast was awaiting us and here again "Pacific Service" stepped in, for the hotel for the day was turned over to the Company and all the food was provided and served by the boys and girls of Drum division. Mr. McNamara, foreman at Spaulding, was given the task of caring for the dining room and to him and his special crew is due credit for keeping confusion at a minimum. Those who helped serve were drawn from all parts of Drum Division. Dan Stewart came from Nevada City, Gene Erskine from Alta, Mr. and Mrs. Ben Wilcoxson from Drum, Bert Smith, Wartell and Bates from Drum, Walter Richardson from Halsey, the



On the rocks overlooking Donner Lake. Mrs. Henderson and young "Bill."

Misses Hough, Armes, Heiple and Greenfield and Messrs. Cooper, Crabbe, Coghlan and Kinz from the Auburn office; Walter Correa, D. Moomaw and Jack Smith from the water department, Ed. White from the garage at Auburn, Al Dixon and Joe Lacey from the line department and J. L. Michael from Wise.

Owing to the crowd, breakfast had to be divided into first and second tables, but the meal was dispatched with all speed, for everybody wanted to get out and revel in the snow. A large percentage of our men and women had hardly ever seen snow and they regarded it as something strange and



Miss Helen Larsen, telephone operator, at home on skis.

wonderful and sported in it like young children. It was great to see Ed. Roening, the picture of health, superintending the skiing. For forty-seven years—think of it!—he has tramped the trails between Cisco, the nearest point on the Southern Pacific railroad, and the great reservoir whose custodian he is, and he is just as Norwegian today as he was when he left his own country to seek adventure in a foreign land.

The whole long forenoon was given up to out-of-doors recreation, the boys and girls climbing up and sliding down the slopes behind the hotel and hiking in various directions, a favorite objective being the point overlooking historical Donner lake.



In the snowclad pastures back of the Summit Hotel.

It is worthy of mention that the winter scene was helped out by Sam Mallato of Truckee, who appeared with his sleigh and team of real Eskimo dogs. He exhibited them with conscious pride and when he set out upon a four-mile trip over the snow to Soda Springs it was wonderful to hear and see him direct that team, not with rein and whip but by familiar calls.

The greater part of the assemblage attended the program of outdoor sports which consisted mainly of skiing and tobogganing. Jack Eddy and Ed. Roening provided the skis and sleds and, needless to say, there was the usual mingling of expert and amateur with the usual results. There was a skiing contest, the prize going to Mr. Wartell of Drum. What a sight it was to see the city-bred men and women with their garments frosted and their faces burned by the snow and east wind! There was health in every minute of that day at the Summit. It was something unusual as well as health giving, and those who did no more than stand around and watch the performances of the others felt more than repaid for their journey. It was all so well worth while.

Incidentally, four hundred ski caps were distributed as souvenirs to the party. The material was secured from the William G. Lee Company of Auburn, delivered at cost, and the ladies of Auburn and other parts of Drum division worked night and day in fashioning the quaint headgear.

Dinner was served at the hotel at high noon and again the local "Pacific Service" family came to the front. The return journey was made at 1:30 P. M., in order to reach Sacramento in time for the train to the bay. It had been arranged to stop over at Emigrant Gap for a peep at the lookout station on the road above, and other stops were contem-



Frank Leach proved an authority on snowman manufacture.

plated, but a wreck on the road below and a sidetrack for the Mary Garden special from San Francisco interfered with schedule, so that the only halt was made at the station called American, where from a railed platform the traveler looks over the American river gorge, one of the scenic wonders of the Sierra trip. It was after seven o'clock when the special reached Sacramento, but those who relied upon train transportation bayward were fortunate enough to have the Oakland and Antioch wait for them. The others rescued their cars from various parking stations and made the return trip in various directions, some not reaching their homes until the small hours of the morning.

In writing of these trips it is becoming harder every day to do them justice. The spirit of rivalry has become strong among the sections and one tries to outdo the other. Where they will stop we don't know, and I don't think we particularly care, for it all means added joy for us who have the privilege of participating in the delightful outings.

The schedule for this year takes in every section of our "Pacific Service" territory, thirty-six counties in extent. Surely there is no better way of becoming acquainted with our company's system.

F. S. M.



Snow-balling at the precise summit, six feet above the highway. Bob Baker and young Bill Henderson.

The ladies of Colgate Section have formed what is known as the "Woman's Club of Pacific Service," meeting each week at one home or the other. This Woman's Club has been one of the most enjoyable features of the Association in Colgate, second only to the big meeting held on the second Saturday of every month when Il Penseroso dares not show his face and the watch-word is Gaiety.

With each meeting the Association becomes more popular. No division can boast a better time than was had at the last meeting in Moose Hall, Marysville. Jimmy Martin, a Marysville tenor, supplied several entertaining numbers and the musical program was further made enjoyable by the Colusa gas house trio. Three young men from Colusa produced a fund of songs which proved highly entertaining.

James Dickey, superintendent of gas generation at San Francisco, was the speaker of the evening, taking as his topic, "Gas Generation." The majority of our members are electrical men or members of the accounting staff, but Mr. Dickey made his address easily understandable to all and supplemented his remarks with lantern slides illustrating the various processes of gas generation.

Dancing, as usual, followed the program and later in the evening refreshments were served under the supervision of Miss Mayme Barrett and her efficient staff.

One recent Sunday a group of association members from Marysville journeyed to Lake Francis, above Colgate powerhouse, for a day's outing. They found the Rideout Bank force, also from Marysville, enjoying a picnic upon the shores of the lake and a challenge was issued forthwith for a game of baseball. The "Pacific Service" men upheld the dignity and reputation of the section most admirably by defeating the bankers 6 to 11.

G. J.

The educational committee of East Bay Section has arranged quite an elaborate program of lectures on the generating, distributing and the metering of gas and electric energy.

Various talks have already been given on the electric meter by our Mr. Tyce and have been well attended, and to create still more interest this division was fortunate enough to hear Mr. J. E. Bridges, of the Westinghouse Company, who with

the aid of stereopticon slides gave a most wonderful and instructive outline of what the electric meter really is.

He took his hearers back to the early days of cumbersome appliances and gradually showed how this wonderful instrument finally attained its simple and very compact form. To show its exactness and lasting qualities a picture was shown of a meter that has been in active service in our own company for nineteen years and is still going strong.

It is hoped that all who can take advantage of these meetings will do so that a better understanding may be had of the small cast-iron box which means so much but is so little understood.

At a meeting held on the evening of April 20th Mr. J. D. Davidson, vice-president of the C. B. Babcock Company, gave a very interesting talk and demonstration on the "Kompak" heater. Among some of its splendid features is the absolute safety with which it can be used. This little heater is so designed that when the pilot light is not burning, no gas can possibly be discharged or consumed.

Messrs. Gustave Schwab and Brown explained and demonstrated in a most interesting way the Reaves, also the Collins & Russell gas mixing machines. Mr. Schwab gave a very fine talk on the pre-mixing of gas for industrial purposes before making the demonstration. With these new gas-mixing machines on the market it is now possible for the smaller shops to use the same modern equipment as is used by larger plants, at a cost that does not make their use prohibitive for the smaller producer.

And last but far from least, came the lunch. No meeting, however fine, is quite complete without something to top it off with in the way of "eats." Then, too, you always feel a little closer to a fellow when you sit next to him at that "wind-up" lunch. Coffee "and" was the offering, the coffee being of the famous P. C. Smith variety.

When such men as E. G. McCann, chairman of the program committee, W. M. Henderson, Chairman of the educational committee, and J. A. Johnson, chairman of San Francisco section, find it sufficiently interesting and educational to attend these meetings, we are sure others will profit by attending too. That was a splendid gathering boys, and we want to see you all there at the next meeting and don't forget to bring another employee or guest.

The following dates have been assigned to the different departments by Chairman Shuhaw.

May 14, 1921 ..... Martinez.  
 June 14, 1921.. Bookkeeping Department.  
 July 12, 1921..... Station C.  
 August 9, 1921.. Accounting Department.  
 Sept. 9, 1921..... Gas Distribution Dept.  
 Oct. 11, 1921..... San Leandro.

The long looked for surprise which the Electric Department promised for April 14th at the Ebell Hall proved to be a very pleasant one.

H. Grant Keesling, chief operator of the "synchronized orchestra," started things going with a lively number, entitled "A Short on the Primary." A few "dark moments" by the "light" boys came next. Black-faced comedians and soloists. The soloists were: L. D. Tyner, F. M. Viera and M. Renatti. Messrs. Allen, Fisher, Hogan, Anderson, Pratt, Abernathy, Waltham, Miller, Briggs, Archbold, Griffin, Catching and Stephens, made up the chorus.

"Roaring lions on the midnight express" the next number, was a moving picture. The roaring lions got a roar out of the audience.

Jim Thompson, on the program under the heading, "Single phase high frequency arcs" proved himself to be a "live wire" as a Dutch comedian.

Mr. G. Dickerson, of Sherman Clay and Company, assisted by Mr. C. Adams of the Kimball Electric Company, were to treat us to a concert by Herman Heller and his orchestra at the California theatre, in San Francisco, by wireless and a magna vox, but owing to atmospheric disturbances and wireless messages being sent out of Mare Island, this part of the program had to be given up.

"A Dream," a vocal solo by Miss Thompson, was very well sung, as was also "Margarie," which she sang upon receiving an encore.

"Margarita"—the canary's rival—in "Woodland echoes." This was none other than Mrs. H. G. Keesling. As a whistler, Mrs. Keesling has the canary beat a mile.

S. James Staley and his "Royal Hawaiian string orchestra" gave us a great musical treat. The players were: Guitars—S. J. Staley, Mrs. Keesling, A. C. Archbold; Mandolins—Homer G. Keesling and L. R. Pratt; ukuleles—Ruth Bartmess, Gertrude Hamilton, Thera Hamilton, Mrs. Archbold, K. M. Anderson and L. J. Garcia. The stage setting was

very pretty and represented, "Twilight in Honolulu" with the players dressed in Hawaiian costumes.

President A. U. Brandt declared the meeting to be a regular meeting of the Association at large and asked for a vote on an amendment to the Constitution providing for the election of a member at large as a member of the Welfare Committee. The Amendment carried unanimously.

Dancing concluded the evenings program.

P. S.—W. W. Shuhaw did not talk to us at this meeting.

A very interesting and instructive educational meeting was held Monday evening, May 2nd in R. A. Gentis' office.

Mr. W. D. Skinner, chief load dispatcher gave a lecture on the 11 K. V. system in this division. About seventy men, operators and linemen from all over the division were present. After the lecture Mr. Skinner invited those present to ask questions. Several rules of which the men were in doubt were discussed and made clear.

This lecture also proved interesting to those not in the electric department and gave them a better understanding of the big responsibility that rests on the chief load dispatcher and also all the men in keeping the electrical end of "Pacific Service" running smooth.

J. L. H.

The San Francisco Section ended its April activities by a dansant and whist party on the 29th, held in Native Son's Hall. One hundred and forty whist experts contested for a handsome array of prizes in the banquet room downstairs, while upstairs about 350 employees enjoyed an evening of dancing.

The Kewpie Doll Wheel and Rack proved very popular, netting quite an addition to our "annual event" fund. The whist party in particular proved very successful, and requests for more evenings of this nature are heard on all sides.

The educational committee, Mr. F. Talcott, chairman, distinguished itself May 11th in the Potrero gas plant. This meeting brought out over 600 people, most of them transported in by a fleet of touring cars, the Sutter Street office being the uptown terminal, and several trips had to be made to bring them all over. During the evening about 75 cars passed through the gate. For the visitors home-

going, thanks to the courtesy of the United Railroads, several uptown street cars were "spotted" at 22nd and Kentucky Streets at 11:15 o'clock. This made a prompt dismissal possible.

Arrangements were made by Mr. J. M. Dickey, Engineer of Gas Generation, San Francisco division, and Superintendent D. J. McCarthy, so that the visitors were grouped off and conducted through the plant by employee guides who explained to them the process of fabricating this utility which serves the public day and night without fail. Judging from the many questions asked, all serious and intelligent, it would seem that this is a subject all are interested in and know little about. One guide told of one of his party checking up on his "slide rule" a statement or question of tensile strength. Another asked if the operators go home after the generator is filled with gas.

The boiler room proved very interesting to many as the lampblack, which to them seemed impossible fuel, was fed into the gaping maws of the lurid furnaces by the husky firemen on shift. Across the way under the pipe shop, in an old time basement filled with mains and old foundations, a museum was rigged, to show the passing out of our midst forever three characters designated "gloom," "pessimism," and "old man what's the use." These were represented by two figures reclining in bunks smoking "dream pipes" a third hanging by the neck. This chamber of horror was illuminated by a ghastly green, while signs were displayed showing what might be had had the Eighteenth Amendment not been ratified. They read—Naphthalene cocktails, menthane splits, oxide fizz, lampblack punch, Hill Benderson drips, etc.

The oxide house back of the office building was converted into a comfortable auditorium with a seating capacity of about 500. Here Mr. J. M. Dickey delivered a lecture on "Gas Production." Lantern slides were shown.

Mr. Mulford, who had a most interesting demonstrating model of gas manufacture, was surrounded by members of the Association where a very clear idea of the operation of the plant was outlined.

Jimmie Cunningham, one of the veterans of the Potrero Gas Works, was guide for a large group and when Jimmie got through with that group they had been through every branch of the manufacture of gas.

Mr. A. U. Brandt, Chairman, P. S. E. A. gave a talk on the advantage of a membership in the N. E. L. A. for Pacific Service Employees.

Mr. E. G. McCann of the Executive Committee made several P. S. E. A. announcements. Light refreshments were served. Our plant orchestra furnished music for dancing which completed the program.

While this meeting was an Educational effort, it was also in the nature of an anniversary at the Potrero plant, completing its fiftieth year as a high producing and up-to-date gas plant. Coal gas was made here in 1871. In 1888 the Springer process was installed, and in 1905 it was converted into what is now the largest oil gas plant in the world.

This date also marked the passing of another "milestone" for our ever ready Superintendent of Gas Distribution, Mr. W. M. Henderson, and the hope was expressed that in both instances the next fifty years would round out just as successful.

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Our program committee, Mr. G. S. Tracy, chairman, is working hard rehearsing "Pacific Service" talent for the minstrel night May 27th. In conjunction with this our educational committee is staging a sketch teaching "Safety First" for traffic and automobiles.

J. A. J.

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Arrangements have been completed for the de Sabla outing on Saturday and Sunday, May 28th and 29th. The place of assembling is Chico, whence transportation to Camp One will be provided for all who are unsupplied with automobiles.

The entertainment will take place at Camp One. There will be dancing, interrupted by a midnight supper, and two hundred and fifty cots will be spread under the stars. The warning has gone forth, "Everybody bring your blankets." The following day, Sunday, there will be breakfast at Camp One and a barbecue later in the day. An interesting ceremony will be the dedication of the vacation site officially approved in accord with the general invitation to "Pacific Service" employees to spend their vacations within "Pacific Service" territory. As indicated in a previous article in Pacific Service Magazine the site is under the pines near the head of the reservoir at Camp One.



## *The Financial Side "Pacific Service"*

### OWNERSHIP OF COMPANY'S SECURITIES

One of the features of the Company's financing during the past few years is the increasing degree in which California investors are absorbing its securities. Of the \$174,990,688 par value of securities outstanding in the hands of the public at January 31st, 1921, \$104,005,088 were held in this State, as indicated by the following summary:

	Par Value Outstanding with Public	Owned in California		Owned Outside California	
		Amount	%	Amount	%
Bonds.....	\$105,611,600	\$61,783,700	58	\$43,827,900	42
Stocks.....	69,379,088	42,221,388	61	27,157,700	39
Total.....	\$171,990,688	\$104,005,088	59	\$70,985,600	41

While the above tabulation shows that 59% of the total securities in the hands of the public are owned locally, an examination of recent issues reveals that the proportion of California holdings is increasing, as witness of the following figures, which cover the issues of the past nine years. This table also shows the more intensive distribution of later issues.

	Approximate Date of Issue	% Held in California	Average Holdings
General and Refunding 5% Bonds.....	1912-1918	31%	\$1,305
First Preferred 6% Stock.....	1914-Jan. 1921	83%	2,854
5-year 7% Notes.....	May, 1920	86%	2,784

No accurate figures are yet available for the recent issue of \$10,000,000 First and Refunding 7% Bonds, but it is safe to say that at least 80% of these bonds were distributed locally.

This increasing predominance of California holders of the Company's securities is undoubtedly attributable to two facts:

1. California, by reason of its rapid growth in wealth and population, is becoming more and more an investing state, increasingly capable of financing and fostering enterprises conducted in this section of the country.

2. California investors are, to an even greater degree than in the past, convinced of the merit of the Company's securities.

In this connection, it is also worthy of note, as an indication of the Company's growing financial strength, that whereas in former years a very large proportion of its financing was accomplished through the sale of bonds, in the last seven years upwards of \$23,400,000 or 42.8% of the par value of securities issued, represented sales of stock, as will appear from the following table:

STATEMENT OF PERMANENT FINANCING IN THIRTEEN YEARS  
FROM 1908 TO 1920. INCLUSIVE

	Bonds		Stock		Total
	Par Value	% of Total	Par Value	% of Total	
6 Years, 1908-1913.....	\$45,513,000	92.9%	\$3,500,000	7.1%	\$49,013,000
7 Years, 1914-1920.....	31,560,000	57.2%	23,436,450	42.8%	54,996,450
Total, 13 Years.....	\$77,073,000	74.1%	26,936,450	25.9%	\$104,009,450

A FEW FACTS ABOUT THE GAS AND ELECTRIC INDUSTRY IN  
GENERAL, AND OUR BUSINESS IN PARTICULAR

The gas and electric industry in this country has already reached tremendous proportions. The electric companies in the United States represent a total capitalization of about four billion dollars, and the gas companies at least two and one-half billion dollars, or an aggregate of outstanding securities of \$6,500,000,000. It is estimated that over 1,500,000 persons in America own stock in utility corporations and that of the \$29,000,000,000 deposited in the 27,086 banks of the country, \$1,700,000,000 is invested in public utilities.

And yet, if the experience of the past few years may be accepted as a criterion for presaging the promise of the future, these figures will be enormously increased in the next few years. The electrical industry, in particular, in spite of its rapid growth in the past few years, is still very far from attaining its full development. In the past eighteen years the amount of electrical energy produced in central stations has increased more than fifteen times, and yet less than one-sixth of the rural population of the United States is served with electric current, and less than one-half of the urban population. In this connection, it may be said in passing that the per capita consumption of electricity in the Western States is twice that of the country as a whole.

Each day sees some new application for the use of electric energy in the home, in industry, in agriculture—in every branch of human activity. In 1902 the aggregate horse-power of motors supplied by central stations was less than one million. In 1920 it exceeded twelve million. The increased use of electricity, even in the short period of eight years, is well illustrated by the following table showing the sales of energy for power purposes by the Pacific Gas and Electric Company in 1920, compared with the year 1912:

INDUSTRY	Sales of Electric Power		Increase	
	1920	1912	Amount	Per Cent.
Agriculture.....	\$2,246,697	\$195,884	\$2,050,813	1046.
Mining.....	1,110,322	576,785	533,537	92.4
Transportation.....	2,557,636	627,763	1,929,873	307.4
Manufacturing.....	3,526,059	1,436,644	2,089,415	145.4
Commercial and Miscellaneous.....	1,518,392	391,567	1,126,825	287.7
	\$10,959,106	\$3,228,643	\$7,730,463	239.4

It will be noted that the Company's revenue from sales of energy to the basic industries of the State has more than trebled in the last eight years, and the past very material development of this section of the State, which has to a considerable extent been made possible by the Company's abundant resources of electric energy, will be still further augmented by the large hydro-electric installations now under way.

## Pacific Service Magazine

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THE PACIFIC GAS AND ELECTRIC COMPANY

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*The Pacific Gas and Electric Company desires to serve its patrons in the best possible manner. Any consumer not satisfied with his service will confer a favor upon the management by taking the matter up with the district office.*

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### EDITORIAL

The Public Service Commission of Indiana is in the public eye just now by reason of a decision in which the right of the public utility to exist is not only conceded but insisted upon in very plain terms.

The decision referred to involved an increase in rates for the Illinois Bell Telephone Company, which had been laboring under an unreasonable depression through inability to earn sufficient return to give adequate service to the public it served. In its decision the Commission said:

"It is contended that in times of business depression a public utility should be required to forego its profits and take its losses like any private corporation. This might be all right if during the hard times a public utility were permitted to close its doors and suspend operation until business conditions became promising.

"It might still be more logical if the utility were permitted in boom times to enjoy large earnings and pay out its profits in dividends."

The obligation of a public utility to give service at all times, regardless of business conditions, was descanted upon at some length, but the really unusual part of the decision was contained in

the paragraphs quoted. The Indiana Commission is to be complimented for the directness with which it voiced the sentiment of fair play. It is just such expressions of opinion that bring home to us more than anything else the realization of how unfortunate has been the popular attitude toward the public utilities, a condition owing to which the various Public Service Commissions of the country have found it necessary, from time to time, to express sentiments and pronounce doctrines which, in this era of intellectual development, should be so generally accepted as not to require dwelling upon. And yet, that such expressions are found necessary cannot be gainsaid.

Just how long the public will need educating upon the very fundamental principles of public service no man can say. The campaign of enlightenment seems to be a never ending one, for the same old, worn statements are made, the same threadbare theories put forth every time a utility goes before the regulating body of its State with an application for relief in rates against oppressive conditions. One would think that in the common interest the game of corporation-baiting would be abandoned as an obstacle to progress. But no. In too many communities are found men whose professions or business callings require them to be of trained mentality and to be well informed upon the topics of the day, yet whose antagonism to what they miscall the privately-owned public utilities causes them to advance arguments and make statements that show a lack of reasoning power that would disgrace a schoolboy.

However, the campaign of education is in progress and must eventually make itself felt everywhere. Not infrequently now are heard expressions of opinion that the public attitude in regard to the utility companies is changing. Mr. W. H. Hodge, director of publicity for the H. M. Byllesby Company, is responsible for just such an expression. In a recent interview he declares his opinion that the public attitude today is very different from what it was in 1914, when the great world war opened.

"The public has come to realize the inseparable importance to the individual and communal welfare of electric light and power and electric railway transportation," observes Mr. Hodge. "Moderate increases in service rates have been contrasted with doubled and trebled prices

for other necessities. Disappointing results from government railroad operation have been contrasted with continued efficiency by the privately-owned utilities. The result has been a much fairer public sentiment and a strengthening of the hands of the regulatory bodies in granting equitable rates to the companies.

"A striking phase of public utility development in the last few years lies in bringing the public and the utilities together through what is known as the customer ownership movement. A large number of progressive companies have invited their customers to become profit-sharing partners in the business, offering, as a rule, their preferred stocks for cash investment or on a partial payment basis. The response of the public has been surprising. Customer ownership is proving to be of the greatest value in improving the public relations status of the service organizations. It means popular ownership with retention of the virtues of private operation and responsibility. No more satisfactory result than this can obtain under any other condition that would give proper service."

In the light of just such expressions of up-to-date opinion it is refreshing for us of "Pacific Service" to remember that it was our company that set the pace for the other public utilities of the land in customer ownership. It is some years ago now and the step was taken at a time of financial unrest, yet it will be generally remembered that when the Pacific Gas and Electric Company offered a large block of preferred stock to its stockholders, consumers and employees upon the partial payment plan the experiment, if so it may be called, proved an instantaneous success, and from that point dates the popularity of customer ownership as a basis of public utility financing.

It has now come to be universally recognized that in hydro-electric power development lies the great future of the West. Leading experts on both sides of this great continent are estimating the actual needs in money to accomplish this development, and the sums mentioned are enormous. It is estimated, for instance, that the combined financial programs of the power companies of Cali-

fornia call for the expenditure of nearly one billion dollars in order to provide the increased power which will be required before the close of the next decade.

Mr. Martin Insull, president of the National Electric Light Association, places the aggregate requirements of the country, as a whole, for power development during the next five years at five billion dollars, an average of one billion dollars a year! Mr. John Willis Baer, president of the Union National Bank of Pasadena, is quoted in an estimate that a minimum of \$700,000,000 in new money invested in public utilities will be required by California for each increase of 1,000,000 inhabitants in the State. Mr. Baer bases his statement upon information received from the United States Senate Committee on Reconstruction and Production.

Now, to raise these enormous sums it is essential that the public confidence shall be behind this great power development project. To gain the public confidence it will be necessary for the public to know and understand the true situation with regard to the power companies. Furthermore, this knowledge and understanding will not be gained through misrepresentation, nor through political clamor, but through an open and businesslike exposition of cold, hard facts. The public wants to know and it shall know. Despite all obstacles, the facts shall be driven home.

In our March issue, in the course of an article describing the various beauty spots in our "Pacific Service" territory that invite the summer vacationist, there appeared a statement to the effect that Muir Woods in Marin county was presented to the State by the late John Muir. This statement, of course, was erroneous. The donor of this priceless gift was former Congressman William Kent, whose country estate lies at the foot of Mt. Tamalpais. Theodore Roosevelt, who was President at the time, desired to perpetuate Mr. Kent's name in connection with this gift, but Mr. Kent modestly declined, preferring that it should bear the name of one who also knew and loved California woods, our country's great naturalist, John Muir.

## *Co-operation the Watchword of Twentieth Century Development*

A truly representative gathering of men prominent in the electrical industry on the Pacific Coast was held in the rooms of the Commercial Club, San Francisco, on the evening of Wednesday, May 18th, under the joint auspices of the San Francisco Electrical Development League and the California Electrical Co-operative Campaign.

It took the form of a dinner which was attended by several hundred men engaged in various branches of the industry. Mr. Robert Sibley, publisher of the *Journal of Electricity and Western Industry*, presided. The duty of exploiting the work of the Co-operative Campaign since the last get-together dinner fell to Mr. Lee H. Newbert, as chairman of the Advisory Committee. In the course of his remarks he told how the work of the campaign had attracted attention outside of California to such an extent that other sections of the United States had instituted similar organizations. Mr. Newbert called special attention to the coming convention of Pacific Coast Section, N. E. L. A., at Del Monte, during the week of June 7th, and promised that at the general session, to be held on Friday, June 10th, a message of special importance would be delivered to all who cared to attend.

Mr. Jesse Steinhart, a San Francisco attorney well versed in public utility matters, traced the history of the B-B campaign now in progress in California. It had started, he stated, as a real estate proposition, then, from a booster campaign of purely local significance it had finally spread all over the northern part of the State.

It was a proposition, said Mr. Steinhart, of getting together and telling the world that northern California is on the map and has something to offer to the enterprising settler.

The speaker of the evening was Mr. W. E. Creed, President of "Pacific Service." He was introduced to the gathering by Captain Harry F. Jackson, general manager of the Great Western Power Company. In his address Mr. Creed called the attention of his hearers to the immense vista of expansion that lies before California at the present time and

to the necessity of unrestricted development of hydro-electric power to make that expansion possible.

"Democracies have taken possession of the world," declared Mr. Creed in the course of his remarks. "Education is a modern necessity. We no longer live directly from the soil. We mass in big cities. Our very lives depend on co-operation, for we are interdependent. We have up here in the north the greatest buying power in this section of the country and the greatest supply of raw materials. Conservation, so called, has retarded development, but it must be encouraged from now on. We must have the understanding, the co-operation and the good-will of our people. We in the power business have to compete with many other attractive investment propositions. It is necessary for the flow of capital to be encouraged.

"Other conditions make California one bright spot in the whole world for development and expansion. Up to the present goods from the Orient have passed, and are still passing, through San Francisco to the Eastern coast, where they are manufactured and shipped back again to California. This must not be. California will do her own manufacturing one day soon. It is not generally known that California has over a billion tons of highest grade iron ore. We know that Spain is opening its steel industry through its electrical power; why may not California do the same? She may and will. If we have vision enough we may be confident of the future."

Among those at the speakers' table were Messrs. John A. Britton, first vice-president and general manager, and Frank A. Leach, Jr., vice-president in charge of public relations and service, of our company. Mr. Britton enjoyed the, for him, unusual privilege of being permitted to participate without being called upon to make an address. It was an almost unique occasion for him in this respect, and he appeared to appreciate it.

## *Tidings From Territorial Divisions*



### **East Bay Division**

The Oakland Bank of Savings is preparing to build an eight-story building adjacent to its present building and use the lower floor as larger quarters for its present banking facilities. This will call for an expenditure of approximately a million dollars. The Oakland Bank of Savings some years ago added additional stories to its present site, making the building one of the attractive structures of that section of the city. The proposed new unit will be a substantial improvement to 12th and Broadway, which is one of the busy car transfer sections of the city. The bank will now have 100 feet frontage on Broadway and 150 feet on 12th street.

Leon Mills of the Gas Meter Department has been transferred to the main office, 13th and Clay, where he will wait upon the public. The boys of the Harbor View Club presented him with a gold Eversharp pencil, so as to start him "write" on his new duties. Diagram Perry C. Smith succeeded Mr. Mills at the Harbor View office.

Home building has been very active. Permits covering 703 structures, valued at \$1,314,457, were issued in March, of which 251 were for one-story dwellings, 16 for two-story residences and 15 for flats and apartments.

The Admiral Line announces two steamers leaving weekly. One will touch at southern points, south to San Diego, and the other north to Seattle. This makes 17 steamship lines which now dock at Oakland, including those from Atlantic and Gulf coast ports.

The highest gas output for the East Bay division was January 10th, when 14,445,000 cu. ft. was sent out.

The Durant Motors Company of California recently organized and will locate its new plant in Oakland. The company expects to establish the largest automobile factory in the West. This makes the second large automobile factory for Oakland.

The two largest freighters ever built on the Pacific Coast will soon be delivered by the Moore Ship Yard, Oakland, to the Matson Navigation Company. These are 15,000 dead weight tons. The "Manulani" has gone into the Hawaiian fruit and sugar dispatch. The vessels are of steel. Fuel gas was used in all the rivet work, also in burning, bending and cutting.

A 500,000 cu. ft. gas holder is to be installed at San Leandro. This will maintain a reserve supply for that growing section and the eastern limits of the City of Oakland. The cost will be about \$115,000.

A 16-in. high-pressure main is being laid from the gas works out Adeline street to Woolsey street, Berkeley, thence a 12-in. main to Grove street. This will increase the supply to Berkeley and Richmond. The total cost involves about \$140,000.

The new Berkeley Country Club has adopted gas for fuel, both heating and cooking.

Anyone noticing the girls coming to work Tuesday morning, April 19th, with bundles under their arms, would have known that something was going to take place at 518 13th street. Here's the whole secret:

Tuesday noon the accounting department celebrated by giving a rabbit feed in honor of the men of the office, and each girl prepared a special dish for the occasion. Miss Lee Federighi, assisted by the Misses Jeanne Howard, Nora Vogliotti, Eloise Gibbs and Mrs. Hazel Wilson, decorated the tables and served the luncheon. Mr. Parkinson showed himself capable by "mixing the drinks," which proved to be lemon phosphate.

The main table had as a center piece the beautiful Creed loving cup, won by our girls of the tug o' war team. This was surrounded by fruit, boxes of sugared stuffed dates, candies and other dainties. The feast consisted of deliciously fried rabbit, salad, sandwiches, olives, pickles, cakes, cookies, lemon phosphate, stuffed dates and after dinner mints.

There were some forty guests present and each seemed pleased over the affair, especially Mr. Leonard, who, it was whispered, ate seven pieces of cake.

As a result of the pleasant luncheon a Goodfellowship Club was formed for the purpose of carrying out other good times in the future, to which all departments are invited to join to help spread the goodfellowship spirit among the East Bay employees.

A great deal of excitement seemed to be in evidence in the Bookkeeping Department on the morning of April 28th. Everybody crowded around a certain individual. There were "Oh's, Ah's and Best Wishes." It proved that Dan Cupid had again been busy in our midst. The victim this time was Miss Viola Esmond, who blushing displayed a gorgeous diamond ring on her left third finger.

Mr. Lloyd Morrill of the electric counter, and Miss Marion Young of the book-keeping department announced their engagement at the office, Monday, May 2nd.

The congratulations and best wishes of your fellow employees go with you, Lloyd and Marion.

G. B. F.

### Colgate Division

Cities and towns within the boundaries of Colgate Division have been putting forward constructive effort toward the fullest co-operation with the ranks of San Francisco boosters in putting over the B-B campaign to advertise this portion of the State. Big meetings have been held in Marysville, Oroville and Williams, and in each case the keenest enthusiasm was manifested by citizens as well as representatives of the San Francisco Chamber of Commerce, who addressed the boost gatherings. These men were shown about the various communities and have expressed themselves delighted with the hearty welcome they received in Colgate Division.

Enchanting scenery and ideal camp sites have led to the selection of the region around Colgate power house as a setting for many outings during the past few weeks. Over 100 youthful members of the Y. M. C. A. of Yuba and Sutter counties were guests of the company recently on a trip through the power house and surrounding territory, having the

processes of electrical generation explained in detail by operators in charge. F. E. Gates, secretary of Community "Y," was in charge of the expedition which was one of several "See Yuba-Sutter First" trips, during which the lads have seen practically every point of interest in the two counties.

Beside the instruction afforded the young visitors, the day was profitable for it developed into a delightful picnic upon the banks of the Yuba River. Manager Ed Johnson accompanied the boys on their trip.

Marysville played host to hundreds of Knights of Pythias members from all parts of California recently at a picnic held in Cortez Square, a beautiful park located in the heart of town. A trail lined with booths and concessions was the day's big midway. Dancing and games were diversions throughout the day and evening. The number of visitors planned for was 20,000 and the slogan adopted by the committee in charge, "20,000 for a day."

"Pacific Service" has played no small part in the education of the young in Marysville this year. Students from Marysville high school have been taking periodical trips to various factories and works where the processes employed might be instructive. In this way "Pacific Service" functioned, as a group of home economics; students were shown through the gas works recently and told of the many steps necessary to make the vaporous fuel with which the students cook their experiment-meals in the cooking laboratories. The physics class paid a visit to the Marysville sub-station one afternoon and were given an explanation of the practical application of theories they had been studying in the electrical course.

At a local laundry the general science class studied a modern method of softening water. Chemistry classes were taken aboard the giant gold dredgers at Hammonton. They found keen interest in the process as it was explained by dredge operators. Other groups went through the Yuba Manufacturing Company's plant in Marysville. Here they became acquainted with the methods of shaping ponderous and unwieldy masses of metal into parts for the big Hammonton dredgers, or more delicate pieces for use in the construction of the famous Yuba ball tread tractors.

Another interesting tour was made through the Gladding McBean pottery plant at Lincoln. This company is a large manufacturer of all manner of clay products.

The Marysville Water Works and its artesian wells were inspected by several classes. The wells afforded opportunity for interesting study, as the water contains a variety of minerals.

Civics students spent a day at the State legislature in Sacramento.

Manual training and forging classes were given practical applications of plumbing theories by a Marysville plumber.

It is the aim of Principal L. P. Farris of Marysville high school to visualize instruction as much as possible. These methods, as well as other unique and profitable features of the various studies have resulted in a phenomenal growth in the enrollment at the Marysville high.

Williams, Colusa County, is boosting one of the liveliest Chambers of Commerce in the Sacramento Valley. A meeting of the County Chamber of Commerce held recently in Williams was one of the largest yet held by the latter organization. The town and county bodies are co-operating to develop the town. One of the first moves towards this end will be a bond election for the purpose of securing funds to build a municipal water plant.

Marysville has been receiving much publicity this season by reason of its basketball teams, two of which have been prominent among the successful fives of Northern California. The Powell Brothers' team, composed of Marysville and Yuba City men, played a series of three games with the Olympic Club of San Francisco. The local aggregation lost the telling contest at Gridley, California, by a large majority.

Williams, Colusa county, just shines! It is as spotless as a new teakettle. All this cleanliness came about as a direct result of the Clean-up Day which the city trustees ordered recently and which the citizens so heartily endorsed that it is safe to say Williams will never again bear even a smudge.

When Clean-up Day was ordered residents began buying up rakes, brooms, lawn-mowers, hoes and shovels, and the hardware merchants did a rushing business. When the day came every busi-

ness closed and its employees scrubbed and polished all day long, until Williams looked like new.

FARWELL BROWN.

### Shasta and West Side Divisions

The Company has authorized the construction of a broad gauge railroad of a type such as used for logging roads, from Bartle, the eastern terminus of the McCloud River railroad, striking Pit River at Peck's bridge and up the north bank to Pit River power house No. 1, a total distance of 35 miles, at an approximate cost of \$750,000.

The severe winter and the impassable roads have made it necessary to authorize the construction of a railroad to expedite delivery of freight intended for Pit River No. 1 and the other developments. The surveys have been made and approved for some time. There are to be no heavy grades, and completion of the road is expected within 100 days from beginning. Three carloads of rails have already been shipped to Bartle. The Red River Lumber Company will build the first five miles. The road will serve two purposes: that of hauling in the Company's freight and hauling out lumber for the Red River Lumber Company. After completion of Pit River No. 1 the tracks will be taken up and extended down the river from Peck's bridge to the site of Pit River No. 2, a distance of eight miles, and eventually on down to Henderson, on the Big Bend, where the largest of the Company's developments will be located.

April! What hast thou done?

Says April, "Oh, nothing at all; just gave to the lovers the hearts they have won."

On April 9th Jay R. Mason of the Coleman plant took unto himself a bride who was, prior to her marriage, Miss Laura Taylor of Greenacre, Washington. Their honeymoon was spent in and about Redding. We all wish you well on the matrimonial sea.

On April 21st Edmund A. Bell of the Redding office very quietly motored to Red Bluff with Miss Dorothea Bygum of Redding and they were then and there united in the holy bonds of matrimony. After a week in Sacramento they returned. The office force presented them with a handsome cut glass water set, with wishes and congratulations for a bright and happy future.



The Redding office carries a 1921 motto:

"Let us all pull together and build up an organization of which we can be proud."

All reconstruction work of the Kennett-Cottonwood line has been completed and that of the Cottonwood-Red Bluff line is now nearing completion. The Willows-Maxwell line is also rapidly being overhauled.

BEN W. GLASER.

### San Joaquin Division

During the past month, in Modesto district alone, nine new electric range installations have been made and two Bakerite ovens with a capacity of 20 kilowatts each, have been installed.

Installation of the first automobile fender baking oven in California is rapidly nearing completion at the automobile painting establishment of Peterson & Beesemeier, Inc., 10th and G streets, Modesto, and within a few days the firm will be in a position to complete any job of automobile painting offered.

The oven was constructed by Young Bros. of Detroit and is electrically and automatically operated. When completely installed the oven will cost close to \$3250.

The equipment of the oven includes a perfect enamelling apparatus which sprays the enamel instead of by the old brush methods. There is also an air suction blast which prevents the gathering of even one atom of dust, thus assuring perfect placing of the enamel.

The oven proper is equipped with individual ovens capable of taking care of four fenders and other parts of the automobile which may be enamelled. It is automatically controlled and the heat is created through several miles of high tension wires. Of course, the oven is operated by electricity and it is rated at 18 kilowatts.

This installation is the first of its kind here, and with every other modern appliance for the painting of automobiles, car owners need not send their jobs out of the city. In fact, the installation of this oven and the many other improvements to the Peterson & Beesemeier plant meets a long felt want with automobile owners.

In order to prove our oft repeated contention that Modesto is just about the most progressive and wide-awake city in California, we wish to submit the following facts as positive proof, for we all know that figures never lie.

In the last ten years Modesto's population has increased over 129%, this being the largest increase shown in California. The population today is estimated at 14,000. Modesto is located in the heart of 4,000,000 irrigated acres, and this acreage will be doubled with the completion of the \$6,000,000 Don Pedro dam, construction of which is to be started by the Modesto and Turlock Irrigation districts not later than July 1st.

Before irrigation land was selling around Modesto for \$25 an acre. Now it brings from \$1200 to \$2000 an acre.

Bank clearings in Modesto average \$10,000,000 a month. Building permits in 1920 aggregated \$1,650,000. The total valuation of the city is \$7,000,000. Farm products cleared through Modesto in the year 1920 were worth over \$43,000,000.

Modesto is the gateway to Yosemite. It is located on the State highway, 90 miles from San Francisco. Paved highways radiate from Modesto to the four points of the compass.

Modesto's slogan is, "Water, Wealth, Contentment, Health!" You can't beat it.

Mr. D. H. Duncanson, of the firm of Duncanson and Harrelson, who is well known to "Pacific Service," has been engaged by the Modesto and Turlock Irrigation districts' directors to take charge of the construction of the Don Pedro dam. The districts are to be congratulated on securing the services of Mr. Duncanson, as it is well known that he is an extremely energetic and very capable construction superintendent. Mr. Duncanson has already taken up his duties in connection with his new job, and his cheerful face is frequently seen around the office at Modesto.

LILLIANDA.

### San Jose Division

Here is a boost for "Pacific Service": Mr. W. T. Kellogg.

Redwood City, Calif.

My dear Sir:

I want to express both for myself and my fellow residents of Burlingame Terrace a word of thanks for your kind and hearty co-operation in our efforts to secure some consideration at the hands of our Board of Trustees.

The survey that your Mr. Johnstone made of conditions and their causes as applying to our streets was certainly an eye-opener and has been verified by some of our citizens, and I must say that all have a good word for the P. G. & E. Co. as regards the condition in which they have left our streets after having opened them up for a connection.

I want to thank both you and Mr. Johnstone for having attended with our improvement club a meeting of the Board of Trustees of Burlingame, and the assistance rendered at that meeting in putting before the city fathers the true status of conditions.

Results in the nature of proper repairs are already under way.

In writing you I believe that I am conveying the sentiments of The Burlingame Terrace Improvement Club of which I have the honor to serve as president.

Very respectfully,  
(Signed) G. M. D. SHADWICK.

### San Francisco Division

GAS DISTRIBUTION DEPARTMENT

Mr. W. M. Henderson recently returned from Los Angeles where he led a delegation to the Pacific Coast Gas Association. The boys are loud in their praises of the hospitality shown by the gas men of the south and promise to reciprocate should they chance to visit San Francisco.

As the B-B campaign is now on, this is an opportune time to say that the San Francisco division is in no immediate danger of losing its laurels as a leader in efficient gas distribution.

The unloading of pipe for Presidio reservation has begun. The G. M. G. calls for approximately 10,000 ft. of 4-in. I. D. pipe with welded joints, and will supply motor transport corps, Cressy Field exchange, diet kitchen, barber shop, aviation machine shop and officers' quarters.

Mr. E. T. Floyd has recently had his peace of mind disturbed by the rodents of Sutro Forest getting fat and saucy on his prize chickens. Any suggestions that will expedite their extermination will be greatly appreciated.

E. G. C.

### GAS SALES BUREAU

Congratulations are being extended to Mr. John Shaw of the Gas Sales Bureau

on the step he has taken into the sea of matrimony.

On May 9th, at a very pretty wedding, Mr. Shaw was united in marriage to Mrs. Rose Price. John's many friends from the main office presented him with a beautiful electric table lamp with a leather mat, on the reverse side of which the names of his many friends were autographed, and with this gift went hearty wishes for a happy and prosperous life.

The following letter of appreciation has been received from the bridegroom:

"Mr. Henry Bostwick,

"Manager San Francisco Division.

"Dear Sir:

"I can hardly find words adequate enough to express my appreciation for the kind wedding gift received from the division of which you are the manager.

"I thank you very, very much and all the employees through you. I assure you all that your kindness towards me shall never be forgotten.

"Hoping that I may be able to return the same some other time in some other way, I beg to remain,

"Yours truly,

"JOHN B. SHAW."

F. T.

### ADDRESS BY MANAGER BOSTWICK

As a member of the San Francisco Rotary Club's speakers' organization in connection with boys' work, Division Manager Henry Bostwick spoke before the pupils of the Horace Mann School on Thursday, April 21st, on the subject of "The Production and Distribution of Gas."

Upon May 11th Miss Edith H. McConochie, one of San Francisco division's popular young lady employees, late of the Draughting Department under Mr. Bosch, was married to Mr. Lewis C. Dunlap, a young man of promise and ability from one of our southern States. We all wish them an exceedingly happy future, and the Company assures Mrs. Dunlap of its sincere appreciation of her seven years of conscientious and able service.

B. J. D.

### THE PRESENT IS GOOD ENOUGH

"When we prate about the good old days, romance struts but reason shrivels."

HENRY L. DOHERTY.

# There's *Good* in Safe Investment

Practically every human want depends for its satisfaction directly or indirectly upon the safe investment of capital. The schools our children attend, our parks, our water systems, gas, electricity, transportation, telephone service, food, clothing,---even our Government---are made possible by bonds.

The safe investment of people's money in good, sound bonds is a tremendous force for good. Blyth, Witter & Co. is an investment house whose standards admit of no compromise of safety, yet enable the investor to receive a profitable return on his investment.

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## American National Bank of San Francisco

*Invites you to use its fully  
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A **Willing**, generous service, cheerful in spirit—helpful by strength and conservative when necessary to maintain that strength.

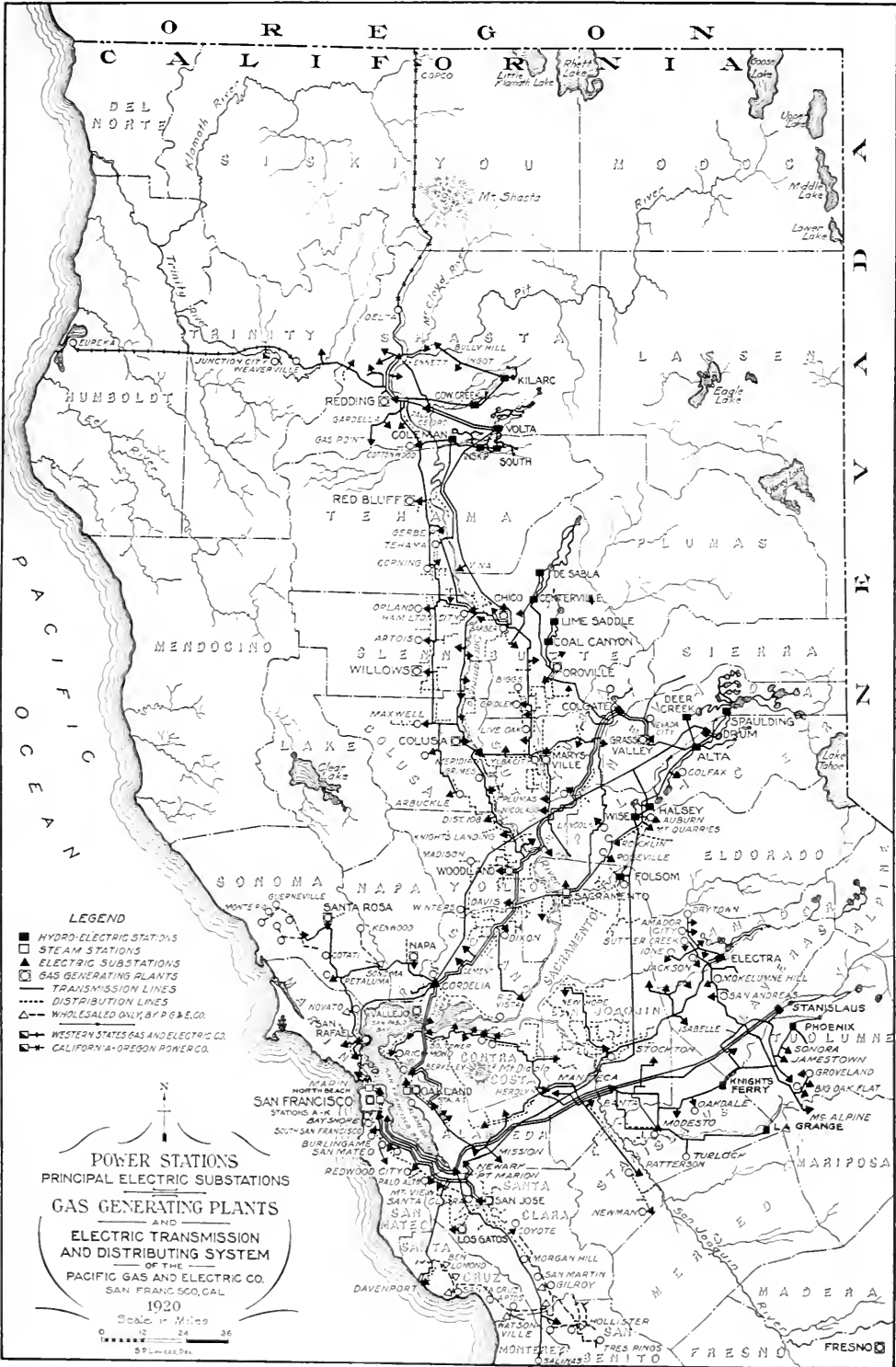
It **Is** our purpose to render a service that will demonstrate our sincere interest in the financial welfare of our customers and other friends.

*Four Per Cent interest allowed in  
TIME DEPOSIT DEPARTMENT*

**Safe Deposit Department** open on business days  
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Corner

**California and Montgomery Sts.**



Pacific Gas and Electric Company Furnishes

"PACIFIC SERVICE"

TO OVER 574,000 CONSUMERS OF

GAS • ELECTRICITY • WATER • STREET RAILWAY

Serving 1,909,285 Total Population, in Thirty-six of California's Counties

CITIES AND TOWNS SERVED BY COMPANY:

	DIRECTLY		INDIRECTLY		TOTAL	
	No.	POPULATION	No.	POPULATION	No.	POPULATION
Electricity .....	166	1,259,006	60	156,225	226	1,415,231
Gas .....	54	1,227,931	2	8,600	56	1,236,531
Water (Domestic) .....	17	66,873	8	19,300	25	86,173
Railway .....	1	76,000			1	76,000

Place	Population	Place	Population	Place	Population	Place	Population
*Alameda.....	30,000	*El Verano.....	400	Milpitas.....	350	*San Pablo.....	500
*Albany.....	2,300	*Emeryville.....	3,000	Mission San Jose	500	*San Quentin....	2,500
*Alvarado.....	700	*Escalon.....	500	Modesto.....	14,000	*San Rafael.....	6,000
*Alviso.....	550	*Esparto.....	250	*Mokelumne Hill	300	*Santa Clara.....	6,000
*Amador City..	1,100	*Fairfax.....	250	*Monterey.....	6,500	*Santa Cruz.....	13,600
*Anderson.....	800	*Fairfield.....	1,000	*Morgan Hill...	1,000	*Santa Rosa.....	11,000
*Angel Island..	280	*Fair Oaks.....	300	*Mountain View	2,500	*Saratoga.....	300
*Antioch.....	2,000	*Fall River Mills	500	*Mt. Eden.....	210	*Sausalito.....	3,000
*Aptos.....	300	*Farmington....	400	*Napa.....	6,500	*Sebastopol.....	1,950
*Arbuckle.....	700	*Felton.....	2,000	*Nevada City....	2,900	*Shasta.....	500
*Atherton.....	250	*Folsom.....	2,000	*Newark.....	505	*Shellville.....	200
*Auburn.....	2,800	*Forestville....	225	*Newcastle.....	950	*Sheridan.....	250
*Barber.....	500	*Fresno.....	48,867	*Newman.....	1,200	*Smartsville....	300
*Belmont.....	375	*Gilroy.....	2,900	*Niles.....	1,000	*Soledad.....	600
*Belvedere.....	550	*Glen Ellen....	900	*Novato.....	400	*Soquel.....	400
*Benicia.....	2,400	*Gonzales.....	2,650	*Oakdale.....	2,100	*Sonoma.....	1,200
*Ben Lomond...	800	*Grass Valley...	5,200	*Oakland.....	225,000	*Sonoma.....	3,000
*Berkeley.....	65,000	*Gridley.....	1,800	*Oakley.....	200	*South San	
*Biggs.....	500	*Grimes.....	350	*Occidental....	600	*Francisco.....	3,750
*Bolinas.....	200	*Groveland.....	250	*Orland.....	836	*Standard.....	300
*Brentwood....	500	*Guerneville...	780	*Oroville.....	5,000	*Stanford Uni-	
*Broderick....	600	*Hamilton City	200	*Pacheco.....	250	*versity.....	2,600
*Burlingame...	4,000	*Hammonton....	500	*Pacific Grove...	2,900	*Stockton.....	42,000
*Byron.....	450	*Hayward.....	4,000	*Palo Alto.....	6,000	*Suisun.....	800
*Campbell.....	700	*Hillsborough..	950	*Paradise.....	500	*Sunol.....	340
*Capitola.....	275	*Hollister.....	2,500	*Patterson.....	500	*Sunnyvale....	1,650
*Carmel.....	600	*Ione.....	1,000	*Penn Grove....	300	*Sutter City....	250
*Cement.....	1,000	*Irvington.....	200	*Penryn.....	250	*Sutter Creek...	1,300
*Centerville...	850	*Jackson.....	2,100	*Perkins.....	250	*Tehama City...	221
*Ceres.....	250	*Jamestown....	600	*Petaluma.....	7,500	*Tiburon.....	350
*Chico.....	15,000	*Kennett.....	1,200	*Piedmont.....	3,500	*Tracy.....	2,000
*Colfax.....	500	*Kentfield.....	500	*Pike City.....	200	*Tres Pinos....	300
*College City..	325	*Kenwood.....	200	*Pinole.....	1,800	*Tuolumne.....	1,000
*Colma.....	1,800	*Keswick.....	1,800	*Pittsburg.....	6,000	*Turlock.....	4,500
*Columbia.....	250	*King City.....	1,500	*Pleasanton....	1,500	*Vacaville.....	1,250
*Colusa.....	2,000	*Knights Ferry.	250	*Port Costa.....	1,000	*Vallejo.....	15,500
*Concord.....	850	*Knights Land-		*Princeton.....	300	*Vina.....	300
*Coram.....	666	*ing.....	400	*Red Bluff.....	3,530	*Vineburg.....	200
*Cordelia.....	300	*La Grange.....	260	*Redding.....	3,572	*Walnut Creek..	500
*Corning.....	972	*Larkspur.....	2,000	*Redwood City..	4,200	*Warm Springs..	300
*Corte Madera.	350	*Lewiston.....	200	*Richmond.....	16,500	*Waterford.....	200
*Cotati.....	200	*Lincoln.....	1,500	*Rio Vista.....	1,000	*Watsonville...	6,000
*Cottonwood...	400	*Live Oak.....	300	*Ripon.....	300	*Wheatland....	500
*Coyote.....	200	*Livermore.....	2,500	*Riverbank.....	400	*Williams.....	625
*Crockett.....	3,000	*Lomita Park..	450	*Rocklin.....	900	*Willows.....	1,139
*Crow's Landing	300	*Loomis.....	450	*Rodeo.....	300	*Winters.....	1,200
*Daly City.....	5,900	*Los Altos.....	500	*Roseville.....	4,200	*Woodland.....	5,000
*Daville.....	400	*Los Gatos.....	3,000	*Ross.....	900	*Woodside.....	225
*Davenport....	300	*Los Molinos...	200	*Sacramento...	76,000	*Yolo.....	350
*Davis.....	1,700	*Madison.....	250	*Salinas.....	5,500	*Yuba City.....	1,750
*Decoto.....	300	*Manteca.....	2,500	*San Andreas...	750		
*Del Monte....	300	*Mare Island...	500	*San Anselmo...	3,000		
*Denair.....	200	*Martinez.....	3,500	*San Bruno.....	1,500		
*Dixon.....	1,200	*Marysville....	6,000	*San Francisco..	580,000		
*Drytown.....	225	*Maxwell.....	480	*San Jose.....	45,000		
*Duncan's Mills	200	*Mayfield.....	1,100	*San Juan.....	550		
*Durham.....	300	*Menlo Park....	1,100	*San Leandro...	5,000		
*Dutch Flat....	750	*Meridian.....	225	*San Lorenzo...	400		
*Eldridge.....	500	*Millbrae.....	300	*San Martin....	200		
*El Cerrito....	1,200	*Mills.....	350	*San Mateo.....	6,000		
*Elmira.....	350	*Mill Valley...	3,200				

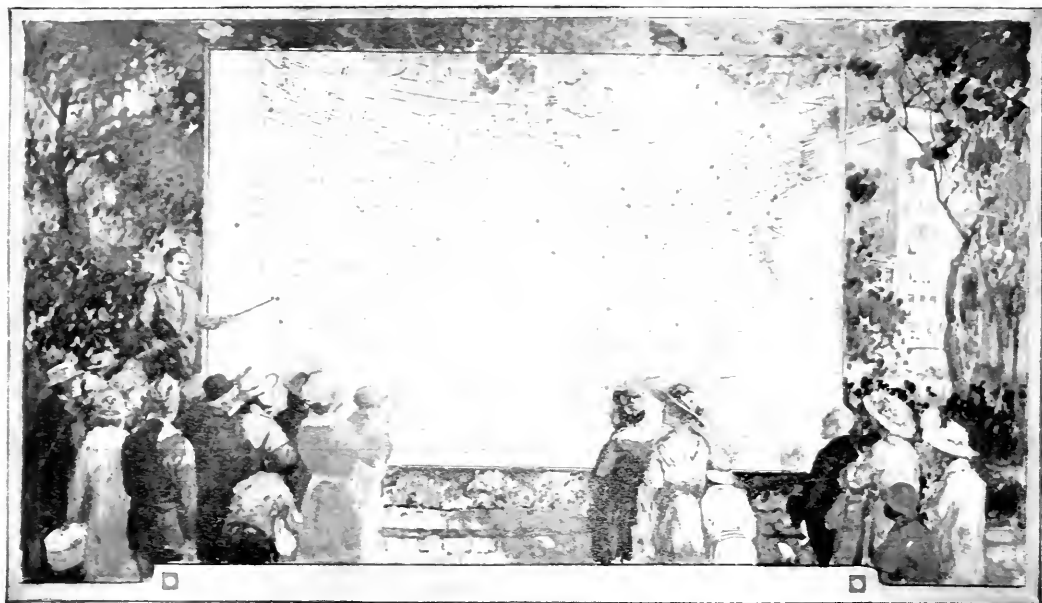
Unmarked—Electricity only. —Gas only. —Gas and Electricity. —Gas, Electricity and Water. —Gas, Elect. and St. Railways. —Electricity and Water. —Electricity supplied through other companies —Gas supplied through other companies. —Water supplied through other companies

"PACIFIC SERVICE" FACTS:

Number of Electric Consumers.....270,273  
 Number of Gas Consumers.....288,084  
 Number of Water Consumers.....15,297  
 Number of Steam Consumers.....463

Total number of consumers.....574,117

Operates 24 Hydro-Electric Power Plants. Operates 4 Steam-Electric Power Plants.  
 Operates 20 Gas Plants.



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WHEREVER your travels may take you this summer—in this country, in England, on the Continent, or in Japan, we want you to know exactly where you can get National Investment Service in all its phases. Under the name of The National City Company in the telephone directory you will find the street address of our principal offices in the following cities.

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Atlanta	Detroit	Omaha	San Francisco
Atlantic City	Hartford	Pasadena	Seattle
Baltimore	Indianapolis	Philadelphia	Springfield, Mass.
Boston	Kansas City	Pittsburgh	St. Louis
Buffalo	Los Angeles	Portland, Me.	Saint Paul
Chicago	Memphis	Portland, Ore.	Washington
Cincinnati	Milwaukee	Providence	Wilkes-Barre
Cleveland	Minneapolis	Rochester	Montreal
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